A. I perform first-trimester suction D&C, second-trimester D&E's and second-trimester induction methods of pregnancy termination.

Q. And in your practice, your current practice, to what gestational age do you perform D&E abortions?

A. Up until 20 weeks.

Q. And to what gestational age do you perform induction abortions?

A. Up to the legal limit in Wisconsin, which is 24 weeks.

Q. And do you ever induce a termination of pregnancy after 24 weeks with the knowledge that the fetus won't survive?

A. Yes. We will—there are situations where we will have labor induction after 24 weeks in cases of lethal fetal anomalies.

Under these circumstances usually there has been consultation with the neonatologist or the pediatric site as far as what type of support of palliative care will be provided to the newborn if it is born alive, which is inevitably going to die.

Q. And you used the term "palliative care." Can you explain what you mean by that?

A. Palliative care in that setting is really providing support of care, to provide all of the support to the mothers and the baby. And but as far as the baby is concerned, to really [491] provide an environment in which the baby can peacefully die.

Q. Does palliative care include life support?

A. Would not include life support under these circumstances, but it may include pain relief.

Q. Do you teach abortion methods to OB/GYN residents and medical students?

A. Yes, I do.

Q. What methods of abortion do you teach?

A. All the methods that I just described to you in a theoretical sense in lectures and discussions. What students and residents will observe in a practical sense depends on what cases that present themselves during their rotations.

Q. Is the performance of D&E abortions a regular part of your practice?

A. Yes, it is.

Q. How long has that been the case?

A. Since the early 1980's.

Q. Is the performance of induction abortions a regular part of your practice?

A. Yes, it is.

Q. How long has that been the case?

A. Since the early '80's.

Q. Are patients referred to you specifically for abortions?

A. Yes, they are.

Q. Can you explain some of the circumstances in which that [492] occurs?

A. The most common circumstance would be in fetal anomaly diagnosed by ultrasound or amniocentesis. The referrals would come from maternal fetal medicine specialists or OB/GYN physicians or family physicians who practice obstetrics.

Occasionally, there are referrals from specialists in other areas, like oncologists or cardiologists. If, for instance, the diagnosis of cancer in the second-trimester is made or severe cardiovascular disease where the pregnancy would complicate the underlying preexisting internal disease. But most of the time the referral would come from the primary OB/GYN physician.

Q. And why did they make these referrals to you?

A. Currently in Wisconsin, there are only four hospitals where pregnancy terminations will take place a in hospital setting.

There are probably only about four or five physicians who provide hospital-based pregnancy termination services.

And in Southeastern Wisconsin, where I am located, really only one of my partners at the medical college and myself will take the majority of referrals, I guess.

At Aurora Sinai Hospital where I used to work there are occasionally other physicians provide pregnancy termination services, but they are—really do not get many referrals.

MR. SIMPSON: We will have to object to the lack of foundation for that last question and answer.

[493]

THE COURT: Overruled.

BY MS. GARTNER:

Q. Dr. Broekhuizen, have you ever testified before in a case challenging the constitutionality of a law that restricts abortion practice?

A. Yes, I did. I was one of the plaintiffs, I think, in the Wisconsin case where there was a Wisconsin partial-birth abortion law based.

Q. And when you say you think you were plaintiff, do you just mean that you weren't—is your question—

A. I know I was a plaintiff, but I sometimes gets confused when I am a plaintiff versus an expert.

Q. Were you a plaintiff in that case?

A. Yes, I was.

Q. And why did you choose to get involved in that Wisconsin case?

A. On my reading and interpretation of the law, I was very concerned that that law could be applied to some of the pregnancy terminations I performed, would ban some of those procedures and would deprive patients from medically-necessary services.

MS. GARTNER: Your Honor, we would move to qualify Dr. Broekhuizen as an expert witness in the area of obstetrics and gynecology, high-risk obstetrics and gynecology and abortion practice.

[494]

THE COURT: Any objection?

MR. SIMPSON: Your Honor, they've included high-risk obstetrics. And Dr. Broekhuizen, as I understand, is not board certified in high-risk obstetrics.

THE COURT: Is it a requirement that he be board certified to be an expert?

MR. SIMPSON: I suppose not, Your Honor. We won't object to the designation as an expert, but we will be crossing on that.

THE COURT: All right. He will be accepted as an expert.

MS. GARTNER: Thank you.

BY MS. GARTNER:

Q. Dr. Broekhuizen, did you come here today to offer expert opinions regarding the Partial-Birth Abortion Ban Act of 2003?

A. Yes, I did.

Q. In your opinion, could this law ban some of the abortions that you do in the second-trimester of pregnancy?

A. Yes, I think it would.

Q. In your opinion, could this law ban some of the techniques that you use to treat women who are in the midst of a second-trimester miscarriage?

A. Yes, it would.

Q. In your opinion, could this law be understood as prohibiting procedures that, in your judgment, are needed by [495] your patients due to a specific maternal health condition?

A. Yes.

MR. SIMPSON: Objection, Your Honor, leading.

THE COURT: All right. I allow leading questions on the background questions. And this seems to me to be still in that area.

BY MS. GARTNER:

Q. And in your opinion, Dr. Broekhuizen, could this law be understood as prohibiting procedures that, in your opinion, are needed by your patients due to a specific fetal condition?

A. Yes, they would.

Q. And could this law be understood in your opinion as prohibiting procedures that in your judgment are needed by your patients to obtain information needed to plan for a future pregnancy?

A. Yes, they would.

Q. Dr. Broekhuizen, you've indicated that some of your patients have chosen to end their pregnancy due to a maternal health condition; is that correct?

A. That's correct.

Q. Does this sometimes arise with medical conditions that the woman had prior to becoming pregnant?

A. Yes, it would.

Q. Could you give me some examples of those?

A. It could be severe cardiopulmonary disease. What comes to [496] mind would be a condition called pulmonary hypertension where carrying a pregnancy may have a mortality risk as high as 30, 40 percent.

Patients with severe coronary heart disease. Patient with end stage renal disease, liver disease.

Q. And do some of your patients choose to end a pregnancy due to a medical condition that is unrelated to the pregnancy but is newly-diagnosed during the pregnancy?

A. Yes. Examples of that would be when a new diagnosis of cancer in the second-trimester.

Q. And why would a diagnosis of cancer lead some patients to choose to end their pregnancy?

A. The treatment for the cancer certainly would interfere, could cause—or could cause birth defects or could interfere with the normal development of the pregnancy. Or the pregnancy itself, right, would make the treatment more—make the treatment more complicated or interfere with the success of the treatment.

Q. And does it sometimes happen that a pregnancy termination is indicated due to a pregnancy complication?

A. There are situations where pregnancy complication even prior to 24 weeks would be the reason for pregnancy termination. What comes to mind would be a condition called Triploidy, where there is a total extra set of chromosomes that is in itself is a lethal fetal anomaly. But that is associated [497] with a placental condition and increased risk of early onset of preeclampsia, which is a pregnancy complication.

Q. And in your practice, in what general time frame of pregnancy are abortions for maternal health conditions performed?

A. Up till the legal limit in Wisconsin: 24 weeks.

Q. And when do these conditions tend to be diagnosed? Is there a typical time frame?

A. There is really not a typical time frame. Some of them would be fairly early terminations, because the patient is very well-aware of her serious health condition. But, for instance, in family planning, methods may fail. Those patients tend to be referred relatively early.

On the other hand, there are patients who seek or who have problems I accessing prenatal care or

unaware of their own health conditions where sometimes this may be relatively late.

Q. Do your patients ever choose to end their pregnancies due to a fetal condition?

A. I would say the majority of the terminations I perform are for fetal conditions.

Q. I think you have described a few of those, but can you just briefly describe a few other conditions that you typically see in your practice where women choose to end their pregnancies for a fetal condition?

[498]

A. Well, they would range from lethal fetal anomalies, chromosomal anomalies as Trisomy 13, or 18, or Triploidy. Lethal anomalies that are more structural in nature like anencephaly where there is no development of the brain. Conditions as renal agenesis where there is no development of any kidneys, which then leads to nondevelopment of the fetal lungs.

And then, there are the conditions as Trisomy 21 or spina bifida, which by itself are not lethal, but are diagnosed by ultrasound and amniocentesis where patients choose to have a pregnancy termination.

Q. In what general time frame of pregnancy are abortions for fetal conditions typically performed?

A. More—there has been some shift in the last 20 years. with the ability to diagnose some fetal anomalies by chorionic villus sampling or DNA analysis, at least some of the diagnosis when there is a strong family history or in high risk has been moved to be earlier part of pregnancy. But some of the structural anomalies, which I diagnose by ultrasound in patients who do not

have a priority risk, tend to be more later in the pregnancy.

Q. And is it the case that all of the chromosomal anomalies tend to be detected earlier in pregnancy with chorionic villus sampling?

A. No, that very much depends on what is the practice in a [499] given community as far as prenatal diagnosis. And it is my sense that in the midwest where I live amniocentesis is still the number 1 diagnostic tool used by patients with advanced maternal age or an abnormal triple screen, while I think on the West and the East coast there may be more chorionic villus sampling done.

But in my environment most patients with fetal anomalies are after—are diagnosed after 16 weeks.

Q. Are there particular fetal anomalies where it is in the woman's physical health interest to end the pregnancy without carrying the pregnancy to term?

A. There are diagnoses and situations where the continuation of the pregnancy will have direct—will have direct effect on the ability to deliver vaginally.

There are conditions where macrocephaly will develop where the fetal head can become so big that it will be too big to pass through the birth canal.

There are conditions as nonimmune hydrops or fetal ascites. That means fluid gets accumulated in the fetal abdomen or edema is developing in all of the fetal tissues where part of the fetal body can become so big that it would be impossible to deliver vaginally. And I would consider those situations where that is going to develop or run a test to potential to develop, especially in the context of a lethal anomaly, a maternal indication

for a pregnancy termination or [500] even earlier induction after 24 weeks to avoid surgical procedures with more morbidity and more complication.

Q. When you refer to avoiding a surgical procedure, what surgical procedure are you talking about avoiding?

A. That would be a cesarean section or a variant of cesarean section, either hysterotomy or a cesarean section.

Q. Dr. Broekhuizen, when a patient is referred to you for pregnancy termination, what is the first thing that you do?

A. Basically, in all patients I kind of collect the information that I have or I collect more information from them. And so I confirm the diagnosis. I identify the reasons why they would choose to have a pregnancy termination.

There are situations where I will ask one of my colleagues to give a second opinion about a given diagnosis. There are situations where I may do an ultrasound myself to confirm the situation.

Subsequently, I will go in detail with the patients about what therapeutic options there are. And on the more circumstances that would mean a detailed description of what a dilation and evacuation procedure would be and detailed description of what an induction method would be.

And during that detailed description I will describe the complications and risk of these procedures. I would compare that with the risk and complications of no intervention. That means continuation of the pregnancy. And [501] after that would come to a con-

clusion with the patients about what they would consider the best option under these circumstances.

Q. Do you ever—in the case where the indication for the termination is a fetal anomaly, do you talk with your patients about autopsy or genetic testing?

A. Yes. There are scenarios where there is—where it is clear from the ultrasound findings that there is a lethal anomaly, but, for instance, no cytogenetic testing, no chromosomal analysis has been done yet. That could be done before the procedure or as part of the procedure if amniocentesis is done.

Or it could be done on placental or fetal tissue after a delivery. And there are situations where there are lethal syndrome that there is a lot of problems. Or in the case of a lethal anomaly, a lethal syndrome, where a detailed autopsy would maybe make the diagnosis more correct or more precise.

And during this discussion, we often end up talking about:

> "Well, what information do you need for a future pregnancy?" Because the question that most patients have is:
>
> "Well, is this going to happen again? And what are my chances of that happening?"

[502]

And so there are situations where an autopsy and a detailed examination of the fetus is very important. And there are situations where that really is not that important.

In diagnosis and known chromosomal anomaly, we know what the qualities of the structural anomaly. If there is normal chromosomes, but an unusual syndrome, the precise nature of that syndrome is important to have that information to counsel the patient for a future pregnancy.

Q. And in addition to yourself, are other physicians involved in counseling and advising the patient?

A. Yes. As I said before, sometimes specialists in other areas, pulmonary specialists, cardiologists, cancer specialists already are involved and have discussed with them, you know, the risk of their medical disorder with continuation of the pregnancy.

In the area of fetal anomalies, it is not uncommon for us—for me to actually have the patients talk to pediatric neurosurgeons, any pediatric subspecialty related to the particular anomaly to have the patient be knowledgeable about what is the exact neonatal prognosis. Because in the nonlethal anomaly area, it is obviously the morbidity and how sick and the long-term prognosis of the newborns that can be deciding points in the patients to make decisions about continuation of the pregnancy or having a pregnancy termination.

[503]

At the medical college we have a program that's called "fetal concerns program," where patients are being referred in the diagnosis of the fetal anomaly.

And the number 1 purpose of that program is to have babies born in hospitals where neonatal surgery can be done with the highest success rate.

So this is in the context of all anomalies, right, then one encounters a lot of noncorrectable fetal anomalies. So a program like that actually attracts a lot of tragic lethal anomalies, and those are the patients that I have to deal with then.

Q. In your practice, how is the decision made regarding what method of abortion the woman will have?

A. As I explained before, I will go in—well, I make it clear upfront that I prefer not—I will do D&E's up till 20 weeks, unless there are three clearly overriding reasons that an induction would be contraindicated after 24 weeks.

Otherwise, it depends on—the patients really will make the decision about what methods she will choose. What—there are many factors that play in these decisions. Some of them are the need for an autopsy or further testing.

Other factors are the patient's personal beliefs, part of their religious belief. There are patients who really have problems with the destructive nature of a D&E procedure and prefer an intact delivery. And there are patients who have [504] strong feelings about the labor process under these circumstances, and based on their previous experience with labor may be really reluctant to undergo an induction method.

And in my opinion, the most important part is to actually ascertain their firm—their firm belief that they are doing what is best for them. And I—the best I can do is give them the risk and complications of the two

procedures so they can make an informed choice that they are comfortable with, because I consider both of those methods very safe.

And my general—even while I go in detail about the complications of these procedures, I always put a surrounding comment there that continuation of the pregnancy and going through childbirth there's a possibility of cesarean section always is a higher—entails a higher risk than any of these procedures.

Q. What, specifically, do you tell your patients about the risks and potential complications of D&E and induction?

A. Well, the three—the complications that are the most relevant to the patients are damage to the cervix or the uterus, and complications as hemorrhage and infection. And they could occur, right, in both methods.

Q. I am sorry. All of those complications could—

A. All of those complications could occur with both methods. The difference—the difference between the two methods is that the—there may be subtle differences in the incidence of [505] these complications. And many—for many patients it is actually not the complication itself, but the consequences of the complications that they are interested in.

In other words, even while the best example is the perforation or damage to the uterus has the potential, even though that is very rare, to leading to a hysterectomy.

For a patient in whom this is the first pregnancy, who clearly did not ever intend to be there at this point in time, she may weigh that complication a little higher in comparing induction versus D&E procedure versus

the patient who has already had several children, who is 44 years old, where that complication or the consequence of that complication, right, has less weight than in the first patient.

And so many patients in my experience ask me:

"Well, what would happen if that complication occurs?"

And I find that more important to actually discuss through than give them just numbers and say:

"Well, the complication rate is .3 percent for this or .2 percent for this." Patients are really interested in what it means to them as far as their future futility or childbearing. So that's basically what I do during this counseling.

Q. I think you indicated that there are some women for whom [506] labor induction is contraindicated; is that correct?

A. Well, there are patients who have a previous scar in their uterus from a previous c-section. And even while we are not—I don't think we really know what the exact incidence is of rupture of that scar with the induction methods—let's say between 20 and 24 weeks—ruptures clearly have been described and we know at term that that would be a risk of labor. And so I think that could be—that certainly would be a relative contraindication and something the patient needs to be aware of: that there is that risk.

Q. Other than a woman with a prior uterine scar, are there other situations in your practice where you consider induction to be contraindicated or at high risk for the woman?

A. When there is a placenta previa.

Q. Can you explain what that is?

A. Placenta previa is where the placenta is located over the cervix. And that is a situation where if labor were to occur the cervix would open, the placenta would separate, and that would lead to bleeding.

And in the situation after 24 weeks that would lead to a cesarean section. After 22 weeks, bleeding would occur under those circumstances, and then there would be more hemorrhage and more bleeding with the induction method than with the D&E procedure.

Q. And are there situations or conditions where the actual—[507] not where it is not the labor process itself that is contraindicated, but where the medication used to induce the labor is contraindicated?

A. Yes, there are medications being used would be generally used for induction methods nowadays would be misoprostol. And there used to be other prostaglandins. And there are conditions where prostaglandins may have undesirable side effects in patients with certain maternal conditions like severe asthma.

Q. Dr. Broekhuizen, you talked about an uterine scar being a relative contraindication; is that correct?

A. I do not think that there ever is an absolute contraindication for any of the methods. I think there are differences that are significant for individuals, and I think a relative contraindication would be a set of patients would be need to be well-informed about what complications may arise from that particular procedure.

Q. If the woman had more than one uterine surgery would the risks of labor increase?

A. The risk of rupture would increase.

Q. In addition to D&E and induction, are there any other ways of ending a pregnancy previability in the second-trimester?

A. There would be—there would be the possibility of serial dilatation, that in itself would lead to a dilatation wide enough that the fetas would deliver completely. Or that in [508] itself would initiate a labor process.

Q. And could you ever use a hysterotomy or a cesarean section method to end the pregnancy?

A. Well, that is clearly a possibility to do a hysterotomy or cesarean section, but given the circumstances that I prefer pregnancy termination most patients would not want to undergo a more major surgical procedure.

And so my goal is to avoid ever having to do that prior to 24 weeks. Now, I have done hysterotomies where inductions have failed, and so it's not that that is not an option, but it would be the last option.

Q. In those situations where you used a hysterotomy where induction failed, why didn't you convert to a D&E-type procedure?

A. Well, the induction failed, but then the conversion to a D&E procedure failed, as well. So, in other words, that was the next step, and then when that failed—those were two situations, two patients that I recall where they had significant cervical scarring from previous surgical procedures to their cervix. And it was just impossible to achieve sufficient dilatation or any dilatation at all.

Q. And, Dr. Broekhuizen, just to be clear, when you use the term "dilatation" does that mean the same thing as dilation?

A. That is the same term.

Q. Dr. Broekhuizen, you said that when you're in the process [509] of counseling your patients when they first come and see you, that you give them a detailed description of the methods of abortion that are available to them.

Could you tell us what—in describing a D&E procedure to your patient, can you tell us what you would say to her?

A. I would describe it in the following manner. I would say:

"You are going to"—depending on the time that the procedure is scheduled in the operating room—usually they would be scheduled in the afternoon—I would say:

> "You are going to come in the morning at 8:00 o'clock, and we are going to place misoprostol or laminaria or a combination of laminaria and misoprostol. Then about four hours later, I will meet you in the operating room where we finalize the procedure. In the meantime, you go to the pre-op area. The anesthesiologist will talk to you about what kind of analgesia or anesthesia you will receive during this procedure. Then, the procedure entails utilizing suction methods and instruments to remove the fetus in parts, and the placenta, in part. After that procedure and during that procedure, you will receive some medication to reduce the amount of blood loss. And after the [510] procedure

you will be in the hospital for about one-and-a-half, two hours. And then, you can go home."

And then, I will give them the instructions abou when I will see them back, and know what kind of precautions she has to take until I see her back.

We will discuss in the cases of the need for cytogenetic testing or that she agrees to have that done, analysis of some of the tissue.

There are even situations where patients have requested even with the D&E procedures prior to 20 weeks, even though there is no burial requirement in Wisconsin of less than 20 weeks, but there are situations where the patient actually ask to have clergy involved and have blessing of the remains.

And I discuss that type of support with patients.

Q. Let me ask you some follow-up questions on that. You said that you would place laminaria or misoprostol or both. How—how would you make the determination of which you would—which or whether you would place both?

A. It has evolved over the years. I used to place laminaria. Then up until about—up until 18 weeks I will only use misoprostol. After—from between 18—beyond 18 weeks I will place laminaria and misoprostol, currently.

Q. And when you use the laminaria, how do you determine how much laminaria you will place in the patient?

[511]

A. I basically will place as many laminaria as I safely can place in the cervix.

Q. And when you are using the misoprostol—are you actually—you're using the misoprostol with every D&E patient now; is that—

A. I use actually misoprostol with every pregnancy termination up until 18 weeks.

Q. Okay. And then after 18—if you are doing a D&E between 18 and 20 weeks?

A. I will place laminaria plus misoprostol.

Q. How do you administer the misoprostol?

A. I place the misoprostol vaginally.

Q. And what—can you explain what misoprostol does to prepare the cervix for the evacuation?

A. Misoprostol will have a direct local effect on the cervix and softens it and dilate it, as well as have an effect on uterine activity. And it will start uterine activity that is the combination of that will lead to a soft, pliant and often dilated cervix.

Q. Can the effect of misoprostol on the cervix be predicted ahead of time?

A. No.

Q. In your practice, have you seen that some women can deliver the fetus completely simply as a result of the misoprostol that you place prior to the D&E?

[512]

A. Yes, I have seen situations where the misoprostol led to a rather rapid labor process where in the four hours between the placement of the misoprostol and the planned D&E delivery has completely taken place. And

I have encountered situation where delivery partially has taken place.

Q. In the situations where the delivery has partially taken place before she comes into the operating room, could the fetus be outside of the woman's body in part to the extent where the fetus is out of the uterus past the fetal navel?

A. That is possible, depending on the size of the fetus and the gestational age.

Q. Could the fetus be alive at that point?

A. It could be alive.

Q. And how would you complete the procedure in that circumstance?

A. By the simplest possible extraction way. It may —the cervix may be dilated sufficiently that the delivery process can be completed by just traction, and the head will follow.

More commonly, if the trunk and the extremities have delivered, the cervix may not be dilated enough for the head, and the simplest possible compression-decompression method I would use to effect delivery of the after-coming.

Q. And would that compression or decompression method result in fetal demise?

A. If the fetus will be alive at that time it certainly would.

[513]

Q. Do you advise your patients when you are describing the procedure to them that misoprostol may have this effect of resulting in either complete or partial delivery before the actual operation or surgery begins?

A. Yes, I explain to them that there are two—well, there are two purposes of placing the misoprostol. One of them would be to avoid as much as possible mechanical dilation with metal dilators.

The second purpose would be to—advantage may be that the cervix is sufficiently dilated that it will not require many instrumental passes. And to some extent if that were to happen, that would reduce the morbidity of the procedure, in my opinion.

Q. And when you are beginning the—when the fetus doesn't deliver at all because of the misoprostol so the fetus is completed in utero when you go into the operating room when you begin the evacuation part of the procedure can the fetus be alive?

A. I think if all the misoprostol has done is to achieve dilatation sufficiently for me to introduce a large suction canula or instrument, I would assume under most circumstances the fetus is still alive.

Q. And you had mentioned talking to the woman about her choices of analgesia and anesthesia. Can you explain what those—what her choices are in that respect?

[514]

A. Are you asking about the D&E ?

Q. Yes. In the D&E context, yes.

A. Well, the choices would be a spinal anesthetic. The other choice would be conscious sedation where the patient doesn't get intubated but receives combinations of an analgetic medications and opiate-type drug. Sometimes that is referred to as twilight sleep.

And then, there would be general anesthesia. Now, in general one tries to avoid general anesthesia because that has been associated with more hemorrhage, less contraction of the uterus during the procedure and potentially higher risk of perforation or wrong passes.

But there are situations where very obese patients, in patients with sometimes more serious medical conditions where anesthesiologists will come to the conclusion that general anesthesia, they won't have more handle on complications that could arise during the surgery.

But the majority of procedures that I perform I know are done under general anesthesia.

Q. And Dr. Broekhuizen, when you begin the evacuation part of the procedure, what is the typical distance between the external part of the cervix and the vaginal opening? If it helps to refer to either of these charts, feel free to do so.

A. Well, it very much depends on the mobility. It depends on the individual patients. Having given birth certainly creates [515] more mobility to the cervix and to the birth canal. But basically one places an instrument. And I use a LS clamp on the anterior or posterior lip of the cervix. And I pull it down as far as possible, because one wants to have a straight passage for instruments.

And there are situations where actually patients in dorsolithotomy position, where the legs are up. One places the instrument where the cervix itself can come to the introitus.

There are other situations where that would only happen halfway into the vagina. And there are fairly

rarely situations where it actually may be able to be pulled outside the introitus.

Q. So that the cervix is actually out—already outside of the woman's body?

A. Correct.

Q. And do you do D&E procedures under ultrasound?

A. After 18 weeks I will always use ultrasound now. Prior to 18 weeks, not all the time.

Q. What determines—prior to 18 weeks, what determines whether you choose to use the ultrasound?

A. It's proudly my findings during the insertion of the laminaria that will help me determine. If I cannot place many laminaria, if there is something on the examination that makes me think I may have more problems identifying parts, but it is very subjective measure or a determination on my part.

Q. In performing the actual evacuation part of the procedure, [516] do you ever convert the lie of the fetus from either a vertex presentation or a transverse presentation to a breech presentation of the fetus?

A. Well, during the D&E procedure, the first part is I use a large suction curette to remove fluid, sometimes even parts of placenta will come at that time. The next step is to introduce an instrument.

And really the goal of that first placement of the instrument is to grab an extremity or any part of the trunk that I can pull through the cervix or as close as possible to the cervix.

Under most circumstances the fetal head would be the largest part, and I would not expect that I would

grab that. I do not pay attention to if it was lying sideways, if the fetal head was first or if the extremities were first. I know that at that gestational age at least half of the time it will be in a breech-type position.

And so during that process, I am sure that I influence the position, right, of the fetus, depending on what I grab and what I pull down.

Q. So it is possible that you could bring the feet down from a position that had been either an vertex or a transverse position?

A. That's clearly possible.

Q. Dr. Broekhuizen, are you aware of the fact that Congress in [517] passing this law made certain factual findings?

A. I am aware of the description of factual findings. I am not sure what these findings are based on.

Q. Are you aware that one of the findings that Congress made was that converting the fetus to a breech position during an abortion procedure increases the risk of uterine rupture, abruption, amniotic fluid embolus and trauma to the uterus?

A. I am aware that that was stated. I am at a loss to explain this in the context of a second-trimester pregnancy termination or an induction method up to 24 weeks.

I think that what's being referred to are findings and effects in the obstetrical literature if one did these procedures later in pregnancy, that that would be an association with amniotic fluid embolism and abruption.

And so I think that this applying facts and knowledge about of obstetrical practice after viability

to a situation that it really should not, has no application for it, in my opinion.

Q. So, in your opinion, is there a risk of—are there any special risks to the woman of changing the lie of the fetus during a pre-viability D&E procedure?

A. I am unaware of anything in the literature about D&E procedures that has associated the procedure with any of the complications that you've just described.

Q. Isn't—

[518]

A. And so, I think the only reference that I think I found was to Williams Textbook of Obstetrics. And, specifically, I think the chapter about some are in breech presentation. And that chapter is written about the management of birth later in gestation. And it is not written on the management of pregnancy termination by induction or D&E prior to 24 weeks.

Q. Dr. Broekhuizen, when you are evacuating the uterus in a D&E procedure, what is your objective?

A. My objective is to evacuate the content of the uterus, the fetus and placenta, with the least possible trauma to the mother in the shortest period of time.

Q. And why is it important to do it in the shortest period of time?

A. Because during this procedure, inevitably bleeding will occur. And the bleeding will probably not cease until the evacuation is complete.

Q. You also said your goal evacuation or your objective is to do this with the least possible trauma to the woman. How do you accomplish that?

A. I accomplish that in three ways. The first way is to prepare the cervix prior to the procedure. And that would be the use of laminaria and misoprostol.

The second one is to ascertain at the beginning of the procedure that I have sufficient dilatation to do the procedure. And if I don't, to actually reinsert laminaria and [519] allow more time to get more dilatation so I am not trying to force instruments through insufficient dilatation.

And the third one is to make sure that I do as few passes with the instrument as possible and achieve most of the extraction part in the lower part of the uterus. And I achieve that, as well, by at sometime in the procedure giving extra oxytocic agents that actually cause more contractions during the procedure, if that is appropriate.

But the mainstay is to achieve sufficient dilatation, right, that requires easy extraction.

Q. And do you use forceps to evacuate the uterus?

A. Well, it is not forceps in the obstetrical sense. Obstetrical forceps is an instrument that one places around the fetal head to deliver the head. It is an instrument that—it is really more a grabbing instrument. There are different types. One of them is called the sopher forceps. They are kind of round. They are kind of squared, serrated surfaces that can crush tissue and hold on to tissue. And they come in different sizes.

Q. And is the purpose of using these instruments to disarticulate the fetus?

A. The main purpose of these instruments is to bring fetal parts through the cervix or fairly close to the cervix. During this process of extraction, right,

disarticulation may take place, but it is not—that is not the primary purpose of the [520] instrument. The instrument is to provide traction.

Q. And is it—does it sometimes occur that disarticulation doesn't happen in the evacuation or extraction process?

A. Again, that depends on the amount of dilatation. If there is sufficient dilatation, it is possible that one will remove most of the extremities and trunk without disarticulation.

Q. Do you have a preference when you are doing the extraction whether it comes out intact or disarticulated?

A. I have to accept the situation that I encounter. But the least passes and the least disarticulation and least crushing I prefer, because that would eliminate boney fragments or sharp edges that in itself could, you know, do damage to the cervix or uterine wall or bleeding.

Q. If disarticulation does occur, where is the part that is actually being disarticulated?

A. That could be in the uterus. It could be in the cervix. It could be—happen in the vagina—

Q. And—

A. —outside the cervix.

Q. And depending on the distance between the cervix and the introitus, could it be outside the woman's body?

A. Sure. It is possible that part of the extremity is outside the introitus when disarticulation takes place.

Q. And in circumstances where there is disarticulation, does the disarticulation occur only at the joints of the bones?

[521]

A. Not necessarily.

Q. And does it ever happen in doing a D&E that you—that you are able to bring the fetus out without any disarticulation to the point where the calvarium lodges at the cervical os?

A. Yes, that can occur.

Q. Has that happened in your practice?

A. That's happened.

Q. And could the fetus be living at that time?

A. Again, depending on the amount of dilatation and the gestational age, it could.

Q. And could the fetus at that point be outside of the introitus to the point where at least up to the fetal navel is outside the introitus?

A. Again, depending on the consensus of the cervix that could happen.

Q. In your practice, what is the earliest gestational age where you have been able to extract the fetus intact up to the point where the head lodges at the cervix?

A. I would say 12, 13 weeks. And all have—and most—more often since the introduction of misoprostol.

Q. When that happens, where you are able to extract the fetus intact in that way, do you consider it to be a different procedure from an abortion in which

the fetus is disarticulated before that, before that point?

A. I do not consider it fundamentally different.

[522]

Q. And you may have said this, but what determines whether you will be able to bring the fetus out intact up to that point?

A. The amount of cervical dilatation.

Q. And before beginning the D&E ask can you predict if this will occur?

A. Not really. Not when I counsel the patients. Not even when I place the laminaria or the misoprostol. I probably will have a better idea the moment I remove the laminaria and I can start the extraction method. And I am more concerned there not about having too much dilatation that total delivery could occur. I am actually more concerned about the opposite. And that is that I have inadequate dilatation and would have to do multiple passes and lead to more complicated procedure.

So I am more looking at that point for the rare situation where I may have to, say, stop the procedure now and place some more laminaria and achieve more dilatation and bring the patient back in a few hours.

Q. In those circumstances where after you remove the laminaria or you examine the patient and you see that you have enough dilation that it is possible that you'll be able to bring the fetus out intact, would you ever attempt to disarticulate the fetus rather than attempt to extract it intact?

A. No. As I explained before, the least passes and the least—instrument passes, the easier the procedure, right? I would very much prefer that for maternal reasons.

[523]

Q. So in those circumstances where you are able to bring the fetus out intact or relatively intact to the point where the calvarium lodges at the cervix, is it usually possible to complete the delivery just with traction?

A. The fetal head is—I mean, all the gestational ages we are describing here is the largest part. And so it depends on the dilatation. There are situations where the dilatation may be sufficient enough where the head would follow, but most of the time that is not the case.

And so, then, depending on the gestational age, right, one has to decide what methods of compression and decompression will one use.

Q. And when you say "methods of compression or decompression," can you explain that a little more?

A. It's possible to grasp or to crush the skull at that time that would lead to release of brain tissue and collapse of the skull, and that in itself would do it.

It is possible that traction at the base of the skull will actually release brain fluids and brain tissue and brain fluids and make the skull collapse.

There are—not in the D&E's up until 20 weeks, but after 20 weeks there are other methods that I would utilize, especially in the case of fetal anomalies that had this disproportionally enlarged to decompress the head by placing trocars at the base of the skull and

really decompress the [524] unusual content of the intracranial content.

Q. Can you describe what a trocar is?

A. A trocar is a hollow instrument with a sharp edge that one can kind of push into hole. Or at least laparoscopy surgery, which most people are aware of, one introduces those in the abdominal cavity to introduce instruments to do surgery on the internal organs. That is the type of instrument. So it is a sharp—it is kind of like—well, it's a sharp point. It is kind of like a big needle. Then, the needle is inside and whole.

Q. And how long does the evacuation part of the D&E typically take?

A. That really varies a lot. It depends. I would say that on the average that that would be 15 to 20 minutes.

Q. Does—and does the time it takes, is it affected by whether the fetus is extracted intact or whether it is disarticulated?

A. Yes. It very much depends on the amount of dilatation and the individual circumstances. And so, I am sure I've been there up to 40 minutes. And I am sure some procedures were finalized in five minutes after sufficient dilatation.

Q. Have you ever, in your practice, lacerated or perforated the cervix or uterus in the course of doing the D&E?

A. I have never perforated the uterus or had to do a laparotomy after a D&E procedure. I think on two occasions [525] where there was an element of mechanical dilatation had to do repair the cervix because of a cervical laceration or the cervical laceration occurred during—as part of the extraction.

So I had to do some suture repair of the cervix.

Q. Do you know whether in either of those cases you were able to extract the fetus intact up to the head or were those more disarticulation-type procedures?

A. I am sure that these were difficult, more difficult D&E's with more passes and more disproportion between dilatation and the size of the fetus.

Q. And after you complete the evacuation with the instruments, with the forceps or other instruments, what do you do next in the D&E procedure?

A Can you repeat the question?

Q. I am sorry. After you've—after you've extracted the fetus with the forceps, what do you do next to complete the procedure?

A. Well, obviously, the placenta has to be removed, too. Now, sometimes that's already part of the placenta may actually have delivered as part of the suction that I start with. Or maybe one of the first things I grab would be the placental tissue.

But, one has to make sure that all of the uterine contents have been removed. And there is a combination of suction and feeling this and blunt curette, I try to ascertain [526] that there are no fetal or placental parts left, at least no gross, no sizeable fetal parts, because I do not think I can ever be assured that there are no small pieces of tissue or even small placental fragments left inside the uterus.

Q. What are the risks of leaving either placenta or other tissue in the uterus?

A. Would be bleeding and infection.

Q. So Dr. Broekhuizen, how do you leave D&E for now, when a patient—when you are having your initial consult with the patient, can you describe for us how you would tell her about the induction procedure and how that would go if that is what she chose?

A. Okay. In the induction, I would explain to her that she would be admitted in the hospital. That we would start the IV. That we would place medication vaginally every four to six hours, depending on the gestational age.

Q. Let me just actually stop you there. When you say she would be admitted in the hospital, would she be admitted as an inpatient?

A. Correct.

Q. And just to go back to the D&E would that be an outpatient procedure or an inpatient procedure?

A. Well, yes, the D&E would be an outpatient procedure. The admission to the hospital—actually, since some patients can go home within 23 hours for insurance reasons they often get [527] admitted as a 23 hour stay. Then, if the procedure lasts longer, then they will become an inpatient.

Q. And that is with the induction?

A. Yes, that's an induction.

Q. Okay. So I'm sorry to interrupt you.

A. But basically the patient gets admitted to an inpatient ward, which in one of the institutions is actually labor and delivery. In another institution it is part of the postpartum ward.

The patient will have medication placed every four to six hours. And I explain to them that it will

start a cramping, laboring, miscarrying type of process. For patients who have given birth before, I can explain it a little easier because they have experienced labor and no what labor pains are.

I explain to them that some physiological process that we are using medications that are really much more potent than any of the medication one would use with an induction at term.

We are kind of overriding nature because there is not—really nothing. There are usually signals at this time that suppressed uterine activity that comes from the placenta or uterus, so that the pain may be stronger.

I explain to them that given the circumstances that we can be very liberal with pain relief. We discuss epidural [528] anesthesia and IV drip with morphine or dilaudid or demerol, complete ultimate type of usually self-administered drip that the patient can use, similarly as patients who undergo major surgery and have used that for pain after their surgery.

And I explain to them that I cannot predict how long this procedure will take until delivery. It may be as short as eight hours. That may be the shortest time frame I have seen it. But I have seen it go as long as 72 hours.

I explain to them that there may be situations where we may have to convert to mechanical evacuation method or convert to the D&E or laminaria, especially if complications as infection would occur.

I explain that after delivery of the fetus we discuss the scenario of live born versus stillbirth. In most circumstances this process is strong physiological

that it will lead to stillbirth, especially less than 20 weeks.

And we discuss what kind of testing, what she would want to do, actually, as far as the fetus is concerned, what support from clergy that she wants. That does she want to hold it?

And there are many patients, especially choosing induction methods, for whom that is very important because they are experiencing this process very similarly as if they were unaware of the situation, would have been unaware of the situation, deliver a baby that is not going to live and want to [529] give all the support necessary.

After the—to go back to the technical elements, after the fetus is delivered I usually change the medication in the IV and I give high dosages of oxytocin, which is the same medication used for induction at term, but then at much higher dosages.

And then, I allow a longer time than at term for delivery of the placenta. As long as there is no significant bleeding, I am comfortable waiting up to four hours for—to wait for spontaneous delivery of the placenta.

But I counsel patients that depending on how much bleeding there is, or how much time one allows, that there may be up to 20 to 30 percent chance that the placenta may not come spontaneously at this gestational age, and we would have to remove that with an instrument and kind of do a D&C type of procedure.

Q. When you say "D&C type of procedure," we haven't had much testimony about first-trimester abortions. What is a D&C?

A. That is actually the wrong word to call it D&C procedure, because those patients' cervixes aren't dilated at that time.

It is really more an instrumental removal procedure. And under these circumstances quite often it is possible to remover the placenta intact. It just is kind of trapped there. It is not always adhering.

Q. Okay.

[530]

THE COURT: Ms. Gartner, it is time for our first break of the morning. We will take a break now. Fifteen minutes.

THE CLERK: All rise.

(Recess taken at 10:00 a.m.)

(Proceedings resumed at 10:15 a.m.)

THE COURT: All right. Please continue.

BY MS. GARTNER:

Q. Dr. Broekhuizen, I think you stated that you described to the patients that you will induce the labor with medications.

I am not sure you stated what those medications are.

A. Currently that would be misoprostol.

Q. And how would you administer the misoprostol?

A. Placed it vaginally.

Q. I think you said before the break that when you're describing the procedure to your patients that you tell them that you may have to convert to D&E techniques; is that what you said?

A. I think that I will counsel them on the fact that inductions sometimes fail, and then the alternative would be the conversion to a D&E method.

And there are situations where I know that spontaneous delivery will not occur because of gross disproportion. This would be usually in the case of fetal anomalies or as in high probability of not occurring, because [531] the fetal head or a part of the fetal body will be so big, in which I counsel we will start with the induction method. But we may then have to do other maneuvers to allow for—to create enough space for vaginal delivery by decompressing the fetal head or decompressing the fetal abnormal traits involved.

Q. Okay. I want to—just for now I want to leave aside those situations of the gross disproportion due to a fetal anomaly, and talk about other instances where in the inductions you switch it a D&E technique.

Can you describe briefly those circumstances?

A. There are circumstances where the membranes will rupture relatively easy, early in the process, where infection may occur as a result of that. Or infection may occur even in the presence of intact membranes.

But if the mother develops amnionitis, then the time frame in which the delivery needs to be achieved, right, is clearly foreshortened, because that would represent a significant risk to the patient. And achieving, no matter what method one uses, the whole goal of that is to reduce the complications for the patients and to make it the safest procedure possible.

Under those circumstances, even patients who may—who may—really their desire would be to have an intact delivery, right, I counsel them that under those circumstances, even while that is what they

would want, you know, for their [532] comfort, that under those circumstances we may have to cross the bridge to another method in order to reduce significant complications for her, and convert to a D&E procedure.

Bleeding would be another. Infection and bleeding are the two scenarios in which the timetable can become shorter. And my main goal is to have a healthy patient at the end of this procedure.

The circumstances that leads to the pregnancy terminations, in my circumstances are often already tragic..

And to—no, I don't want to expose the patients to any extra risk. And that is why there need to be flexibility on their part in understanding, right, what the goal is of the procedure, and not the procedure make the goal itself.

Q. In those circumstances, for example, where in the midst of the induction the woman develops bleeding or infection to the extent that you feel that the induction—that you need to end the procedure more rapidly, could the fetus be partially delivered at that point?

A. It could.

Q. Okay. And could the fetus still be living at that point?

A. It could.

Q. When you do then convert to the D&E techniques, how would you go about completing the procedure in the circumstance where the fetus has partially delivered but due to infection or bleeding you need to end the procedure more rapidly?

[533]

A. In the case of a partially-delivered fetus, the sufficient dilatation that I can do a compression and decompression methods to deliver the fetal head. I would, depending on the gestational age, have to choose a method that would most safely accomplish that for the patient under the particular circumstances.

Q. In those circumstances, are there options for delivering the head without using a destructive procedure?

A. Well, one option would be to continue with the induction method and wait for more dilatation, if one would not expect absolute disproportion.

But in the context of bleeding and infection, that would not be in the interest of the patient to allow more time to not effectively treat the infection.

We can give antibiotics, but best treatment of a Chorioamnionitis is not only giving antibiotics, but to the evacuate the uterus as expeditiously as possible.

Q. Have you ever heard of a technique called "Durhrssen's incisions?

A. Durhrssen's incisions is a technique that, again, generally it describes in obstetrical practice after 24 weeks. There the—where a baby in breech position is partially-delivered, but the cervix is insufficiently dilated and the head is not too big to come to the cervix where one would place—you know, cut three incisions in the cervix to basically force the [534] cervix open and allow the head to delivery.

That is a procedure that is generally used not to —if that were to occur. It is a procedure that we all hope we never have to use, because it would be kind of

like a life-saving procedure for often a premature baby in a breech presentation.

And in 2004, I think it seldom would be used because we do not delivery many breech babies—

Q. Would you—

A. —vaginally, especially not when they are premature.

Q. Would you ever consider Duhrssen's incisions to be an appropriate way in the context of an induction abortion to complete an induction where the head was trapped but the woman was infected or bleeding?

A. No, I would never consider that under these circumstances if I were to consider the consequences for the patients and future pregnancies, because that really would be purposely inflicting trauma to the cervix, which, indeed, I can repair.

But that clearly could increase the risk of any cervical problems in a future pregnancy.

And in the context of a pregnancy termination, all right, one has to balance, you know, certain risks to the mother. I think that would be a risk that one would not want to expose the patient to.

Q. Are there other techniques that are used in breech [535] deliveries at term where the fetal head gets stuck to enable the head to be developed—or to be delivered?

A. There is a method. There are methods to even with breech delivery at any gestational age beyond 24 weeks, but especially at term, there are situations where the head is deflected and there is a problem with spontaneous delivery of the head.

And there are techniques where one places a finger in the mouth or two fingers on the maxilla to actually promote flexion of the fetal head, and combine that maneuver—this is a maneuver, internal maneuver, and then have someone else push on the fetal head from just above the synthesis. Or I was actually taught to do that myself with my other hand to achieve delivery of the after-coming head.

And that, of course, is under these circumstances, a life-saving maneuver, because if part of the body is delivered and the head is still there, then we have a—there is a problem.

But that maneuver is called Mauriceau's modified maneuver. But that maneuver is really part of the obstetrical area. It is not of the techniques used for pregnancy termination less than 24 weeks for the fairly simple reason one would need sufficient dilatation for—to place someone's hand through the cervix. And that is not what we are dealing with under these circumstances most of the time.

Q Dr. Broekhuizen, you have just been describing for us the [536] D&E and induction procedures as you do them. In your practice is there an overlap between D&E and induction abortions?

A. Well, there is an overlap in the sense that induction, right, may lead to a D&E procedure under certain circumstances. The reverse is really not true.

It is an overlap in my practice that I counsel patients on both procedures. And what is most important for me is that patients choose that procedure that they are the most comfortable with.

And so I, under rare circumstances, all right, would I exclude one procedure over the other.

Q. Dr. Broekhuizen, in your practice have there ever been special circumstances where in your opinion it was safest to do the abortion in a way where you knew you had enough dilatation that you could achieve an intact extraction of the fetus up to the head?

A. Yes, there have been.

Q. Did any of those situations involve a D&E that was performed for a serious maternal health condition?

A. Yes. One of those that comes to mind was—and the one that I actually described in detail in the Wisconsin case, was for a serious maternal condition where the goal was to do serial dilatation, avoid medication for induction and avoid the traditional D&E-type method.

Q. And can you describe the medical circumstances of that [537] woman and why you considered that to be the best method of abortion for her?

A. This was a patient who had a condition of scleroderma, who had significant pulmonary hypertension, had significant other vascular disease, who was 23 weeks and one day pregnant; was transferred from another hospital to the tertiary care institution I was working at that time. She was in the critical care unit. She was very unstable. She was on multiple medications. And it was clearly felt that the continuation of the pregnancy would be—would lead to her death.

The internal medicine specialist and the pulmonologist and the cardiologist really felt that prostaglandins were contraindicated in this patient.

Q. Let me just interrupt you there. Is misoprostol a prostaglandin?

A. Correct. Were contraindicated in her situation. She thought that the whole laboring process with fluid

shifts and time would be more stressful for her than—in other words, induction was not the best option.

The option of a D&E procedure where the patient would need to have anesthesia, was already—anesthesiologists were very concerned about what anesthesia—what anesthesia method to give her. And if there was a procedure, that would have to be as short as possible with the least amount of [538] anesthesia. That was kind of the scenario we were confronted with at that time.

And I decided to proceed at that time with serial dilatation where we placed laminaria every four to six hours and the concept was that that, in itself, may lead to sufficient dilatation that we could take the patient to the operating room with minimal medication, had sufficient dilatation that we could do at least a partial extraction or maybe a total extraction.

And that is what we set out to do under those circumstances.

Q. And what actually happened with that patient?

A. That patient we placed the laminaria three times. The last time we were up to about four or five centimeters dilatation.

And when we actually took her to the operating room four hours later the fetus had completely delivered so we didn't have to—and, actually, the placenta was sitting in the cervical os. So basically we had just to grab the placenta, and the procedure completed itself.

But I would have been prepared at that time to—assuming that there would have been a partial

delivery and the head still there, to do compressing and decompressing methods.

Q. And in your practice have you treated other patients in similar situations where induction was clearly contraindicated, but this type of serial dilatation technique was in your best [539] judgment the optimal for the patient?

A. In some over 20 years, cases sometimes blur. But I think I have done at least two other cases of similar nature at less gestation age. But, again, situations where it was felt that avoiding of medication, surgery, anesthesia or minimizing that and serial dilatation would be the best method.

Q. And Dr. Broekhuizen, in your practice have there been other circumstances where your patient had compelling personal reasons for having a D&E where the fetus was removed intact and where you attempted to do that for her?

A. I had a ~~patient that~~ had was diagnosed with a lethal skeletal dysplasia.

Q. The fetus was?

A. The fetus had skeletal dysplasia form of dwarfism incompatible with survival. Most patients under these circumstances, after the counseling that I described before, since there quite often is a need for a more precise diagnosis and autopsy, we opt for an induction method.

This patient had a previous cesarean section and very traumatic birthing process the first time and really did not want to have an induction. Not so much because of the rupture risk, but really because of the experience of going through a laboring process.

And she, again—and at the same time she really was interested in having as much information. And so, we need [540] at least the trunk and skeletal part. That examination was important for her. And we decided to embark on the same method as I described in the previous case with serial dilatation, which could lead to laboring process, which would be maybe a little bit more or less painful or physiological or a significant dilatation that we could take the patient and do a partial or total extraction.

Q. And what happened with this patient?

A. The serial dilatation in the sense was so successful that, again, this patient delivered spontaneously. But it was very short time of labor perceived by her. So she was—it ended up exactly as what she had wanted it to be.

Q. And have you had other patients who felt strongly against induction, but who wanted an intact fetus for autopsy purposes?

A. Probably similar scenario. It is very rare, but one or two times.

Q. Okay. And I think you've alluded to this already in your testimony: have you performed induction abortions where you knew ahead of time that due to some type of gross fetal disproportion the head or another body part would become lodged at the cervix during the induction and you would have to complete the abortion instrumentally?

A. That probably has happened more often than the two previous scenarios. The case that I described in Wisconsin a case was a situation with a lethal chromosomal anomaly and significant [541] macrocephaly that clearly was incompatible with survival. But the head

was going to—had already reached proportions that were larger than the head of a baby at term, where the alternative would have been to do a surgical procedure like at that time that really would have been a scar as big as a cesarean section scar. Or an induction and being prepared to decompress the fetal head and to let the skull collapse to, allow for vagina delivery.

And in the context of the lethal anomaly this patient really didn't want to expose herself to a surgical procedure except if tragic development. And the plan was to induce labor. When there is that much disproportion, it's usually in a breech presentation. And to be prepared at sufficient dilatation to be decompress the fetal skull.

Q. And what actually happened with that patient?

A. That patient actually—that went according to plan. She delivered the body partially. At that time it was sufficient dilatation that I could visualize the base of the skull and insert a thin trocar to reduce the fluid. And at that point, of course, fluid and brain tissue will appear.

I think I still needed to have some—I used actually premie-type of obstetrical forceps because I still needed to create some collapsing of the skull. But I could use that type of forceps at 6 or 7 centimeters of dilatation.

Q. Did you say the trocar when you inserted it, was that under [542] your direct visualization?

A. It was under direct visualization.

Q. And was the fetus—in that case, was the fetus alive at the point when the head lodged at the os?

A. I know in that circumstance that the cord was pulsating at that time.

Q. And have you performed other similar abortions in your career where you knew that the head or another very large fetal part would lodge without being able to complete the induction without instruments?

A. Yes. This clearly has happened more often. I had a situation like this only a few weeks ago.

Q. Dr. Broekhuizen, I want to ask you a few more questions about these patients or these scenarios you were just describing.

Before I do, let me ask you: am I right that you described these three scenarios in your declaration in this case?

A. Yes, I did.

Q. And did you discuss them in your deposition in this case?

A. I did.

Q. At the time of your deposition did you also state that there were other similar cases like them?

A. Yes, I did.

Q. At any time in this case has the government requested that [543] you produce the medical records for these abortions or for similar abortions you performed?

A. No, they have not.

Q. Dr. Broekhuizen, in your opinion were these abortions where your goal was intact extraction to the calvarium, were these the safest and best options for these patients?

A. In my opinion they were the safest from the perspective of the least maternal health risks or complications.

Q. And—

A. More importantly, these were the choices that the patients made. I have had—I have done surgical procedures on patients with lethal anomalies where patients—that was their choice.

Q. When you say "surgical procedures"?

A. Like c-section or hysterotomy. They chose not to have this procedure done.

Q. So is it the case that sometimes patients choose procedures that you know carry more health risk to them?

A. Sometimes patients choose for their personal beliefs procedures that if one were to compare one complication with another would be little higher complication than the other.

And so sometimes patients weigh the medical risk of procedures, but at the same time balance that with their personal beliefs or their personal feelings about what is acceptable to them.

[544]

I am sure that religion and religious beliefs often play a role in this, and I have no problem if patients make these informed choices to do a procedure that may have a little bit higher risk than another one, because all of these procedures, right, in itself are safe compared with many complications that patients expose themself in any pregnancy and with childbirth.

Q. In your opinion, are there any special risks to extracting the fetus intact in a D&E procedure?

A. There are no—the only difference is achieving larger amount of cervical dilatation. That is the critical difference. The—it is possible that compared to the D&E the least passive of instruments would actually reduce the risk of direct trauma to the uterus.

The only fundamental difference is if one tries to achieve more dilatation.

Q. Just to put that in context, if you are assuming, say, a 22-week D&E, what would be a typical amount of dilatation that you would get for a D&E at that gestational age?

A. I think at 22 weeks one would try to achieve 3 to 4 centimeters.

Q. What about if you were doing an induction abortion at 22 weeks, how much dilatation would there be?

A. I think probably most of the time six, seven centimeters would be sufficient for delivery.

[545]

Q. And then, just to put that in the context of vaginal delivery at term, how much dilatation would you need if a woman were delivering a baby at full term?

A. Ten centimeters.

Q. And based on your clinical experience and your reading of the medical literature, can you summarize your understanding of whether cervical dilatation using gradual osmotic dilatation or misoprostol to prepare the cervix for a second trimester D&E is associated with cervical incompetence in future pregnancies?

A. My reading of the literature is this: up to 20 weeks there is, I think, sufficient evidence to conclude that with modern methods of cervical dilatation there is no increased risk of premature delivery or cervical incompetence in subsequent pregnancy.

There may be with mechanical dilatation. And after 20 to 24 weeks, I do not think that there is sufficient evidence and sufficient literature out there to make a statement for or against. Or there is no positive nor negative to my knowledge at this particular point.

Now, I need to use that lack of information when I counsel patients. And I actually counsel patients up to 20 weeks I do not think that any of the methods that we have, hygroscopic dilators or misoprostol would pose that risk. But after 20 to 24 weeks it may be there. And I counsel them that if it is, it would be a low risk.

[546]

But there are actually consultations after second-trimester terminations at that gestational age that in a future pregnancy I would recommend that their cervix gets checked serially by ultrasound; that their obstetricians are aware of this, because it is possible if that were the case to make the diagnosis maybe early enough that surgical cerclage could be placed, and the next pregnancy could be saved, if that condition were to occur.

Q. Dr. Broekhuizen, if there were an increased risk of cervical incompetence after 20 weeks, do you think that risk would be enough to make the abortions at that stage unsafe?

A. No, I do not think that that would—it would not —if—I doubt that that risk would be higher than the risk associated with large conizations of the cervix or a

large LEEP procedures, if there is an association there. And that is controversial, as well, because it depends on the size of tissue that is removed.

And so, I do not think that whatever that number would be, that that ever would be in a range that one would consider the procedure unsafe in comparison with of course the indications for the pregnancy terminations that the patient is facing.

Q. What is a LEEP procedure? Could you spell that, first?

A. It's L-E-E-P procedure: loop electrosurgical excision procedure. It is a procedure that is usually used for the [547] treatment—sometimes diagnosis and treatment of a precancerous condition of the cervix where part of the cervix is removed with an electrical loop.

And sometimes precancer of the cervix can extend into the cervical canal, and that has to be removed pretty high up there where one could lose, let's say, half of its cervical length.

And, again, there is a concern: can that lead to weakness of the cervix in a subsequent pregnancy?

Q. When you say that you have patients that are having abortions after 20 weeks and you counsel them that:

> "We don't know about the risk, but there could be a risk," do you do that for both D&E and induction abortions?

A. Yes, I do.

Q. And is this—is that, the uncertainty about that, an important consideration for your patients?

A. I don't—I cannot recall any patient for whom that ever has been the deciding reason to undergo or not undergo a pregnancy termination at that gestation rate, because the reasons for the pregnancy terminations are usually very clear to them and would override this concern.

Q. Okay. And then, just talking, again, about those three scenarios: the woman with scleroderma; the woman with the fetus with skeletal dysplasia; and the very high macrocephalic, [548] hydrocephalic fetus, is there a particular term that you use to describe the method of abortion that you have used in those cases?

A. I assume you mean to describe it to the patient.

Q. Yes.

A. No, I try to, in the most gentle way, explain what I may have to do. I mean, these are not easy discussions that I have with patients. These are—there is a lot of tears shed during many of my counseling sessions.

And so I describe it in a factual sense, but I don't really coin it with a phrase or a term or a medical term.

Q. Okay.

MS. GARTNER: Your Honor, may I approach to put the copy of the Act up?

Thank you.

THE COURT: Are you moving to a new section?

MS. GARTNER: I am.

THE COURT: I would like to ask a few questions on this last subject before I forget.

Doctor, you described a couple of situations where you used what you call "serial dilation" to achieve a greater level of dilation of the cervix so you could attempt to remove the fetus intact or at least partially intact.

My question is: have you had occasion to deliver the fetus intact or partially intact when you have not used [549] serial dilatation? In other words, when you are simply preparing for a regular D&E, have you ever had the occasion to remove the fetus intact or partially intact unintentionally?

THE WITNESS: Not without any medication unless the patient spontaneously would have started the miscarrying process. That has happened, too.

In the context of the diagnosis for which I do pregnancy terminations like fairly serious fetal anomalies it is possible that between the time I see the patients and the procedure ceases spontaneously. They will do that.

In the context of the D&E, if I understand your question, I think counsel asked that question before. When you start the misoprostol to prepare the cervix in that preceding hours, it is possible that in itself will lead to sufficient dilatation. But I already call that an intervention, because the misoprostol is part and parcel for the procedure.

THE COURT: There is a certain amount of misoprostol that you use and a number of laminaria that you use to achieve a dilatation of three to 4 centimeters for a regular D&E; is that correct, say under 22 weeks?

THE WITNESS: Yes. You cannot really predict what dilatation you will achieve, but in most cases you will achieve 2 or 3 centimeters using misoprostol or—

THE COURT: I think my question is simply: has it been your experience that you only essentially performed an [550] intact D&E only in those circumstances in which you sought to perform an intact D&E at the outset?

THE WITNESS: No. It has happened—it has happened after placement of laminaria or misoprostol as a prelude to the surgical part, the evacuation part. It has happened in the intervening time. So I have seen that happen.

THE COURT: Even though when you placed the laminaria, that was not your intent?

THE WITNESS: Correct.

THE COURT: All right. My other with question was: Do all of these second-trimester abortions that you perform, are they the result of a maternal or a fetal health condition?

THE WITNESS: Yes.

THE COURT: All of them.

THE WITNESS: All of them.

THE COURT: Okay. All right.

BY MS. GARTNER:

Q. Dr. Broekhuizen, I would like you to look at this chart which has the operative definition of the law that is at issue in this case. And did you have a chance to read it?

A. I have read this part.

Q. Okay. Are you concerned about the potential impact of this law on your medical practice?

A. I am very concerned about the potential impact of the law on my practice.

[551]

Q. Could—in your opinion, could this law be understood as banning some of the D&E's that you do?

A. I am very concerned that the law would ban some of the procedures I just described.

Q. Just to follow up on Judge Hamilton's question, are you concerned about this law only in those cases where—the impact of the law only in those cases where you do the serial dilatation with the intent of getting to the point where you know you'll have enough dilation to bring the fetus out intact, or would you think it would also apply to the other D&E's where you may or may not have enough dilation to bring it out intact?

A. I think it's—my concern in both scenarios. I am concerned in the situations that I described as in the three cases where that was—the goal was to achieve partial delivery or possibly intact delivery.

But I am as well concerned about the application of this language and this procedure to any D&E procedure, where this could happen without that being the primary goal.

Q. And in your opinion could this law also be understood as banning some of the induction abortions you do?

A. It would. I would be very concerned that it would ban some of the induction methods in which I know that I have to convert to an element of—maybe not an element. Where it would include part—the situation where I can anticipate that there will be partial delivery, and I know that there is going to be [552]

an interrupt body part. And it may not just only be the head. I can think of situations where there would be disproportion in the fetal abdomen that would preclude delivery that I may have to decompress.

Q. Are you concerned about the impact of this law in those situations where you described where in an induction the woman starts to bleed or become infected and you need to convert the procedure to a D&E?

A. I would be concerned for the same reasons.

Q. Dr. Broekhuizen, the definition of partial-birth abortion describes two, two scenarios in terms of the fetal presentation. It talks about delivering a living fetus until, in the case of a headfirst presentation, the entire fetal head is outside the body of the mother. That is the first scenario.

And the second scenario is in the case of a breech presentation, any part of the fetal trunk past the navel is outside the body of the mother.

Are there circumstances in your practice where you've done an induction where the fetus presents in a headfirst or breech—I am sorry—headfirst or vertex presentation. And after the fetal head is outside the body of the mother, as stated in the law, you must do a destructive act to complete the procedure?

A. Yes, I have encountered that situation. There are conditions as nonimmune hydrops or conditions where there is [553] fetal ascites where there is significant amount of fluid in the fetal abdominal cavity that would lead to the abdomen being too large. Or a cystic malformation where there's a fluid-filled area. These both are lethal conditions, and I have had to use Trocar or spinal needle to decompress part of the fetal chest

and abdomen where the contents—in order to achieve delivery of the remainder of the baby.

Q. And was that after the head had fully delivered through the cervix?

A. That's, in these situations, the only way that one can actually do the decompression if the head is not only delivered through the cervix. If the head was actually delivered through the introitus, because I need to have the space to reach the disproportionately large abdomen.

These are fairly rare situations, but they—these are some of the more serious, you know, disfiguring fetal anomalies that one can encounter.

Q. And you have encountered them in your practice?

A. Correct.

Q. In the abortions that you have done using serial dilatation to ensure the intact fetus, knowing that you might have to use a destructive act to deliver the head, did you deliver the fetus to that point for the purpose of performing the destructive act?

A No. My—not for the purpose, because if there—if [554] there would have been the situation where I didn't have to do that, where the head delivered spontaneously, I certainly would have preferred that.

But in certain scenarios, it is improbable, right, that the head will deliver. So it is the disproportion—let's say I described a case where the fetus head was really very disproportionate. But at 21, 22 weeks with induction method there often is enough disproportion that at the dilatation of five, six centimeters the trunk will deliver but the head will not.

So it is—while it is not absolute disproportionately, right, there is relative disproportion.

But under those circumstances, I have seen, even with the disproportion, the spontaneous delivery. But I have seen situations where that did not occur, and then I am faced with the choice of expediting the procedure at that time or not.

And that's why I need to discuss that with the patient, that option may or that situation may arise.

Q. In your practice, do you ever bring the fetus partly but not entirely out of the uterus for the purpose of doing a destructive act?

A. Not for the purpose of doing a destructive act, but I need to be prepared to have to do a destructive act.

Q. Does your purpose in evacuating the uterus vary by whether [555] you are doing a D&E procedure or an induction procedure or the serial dilation-type procedure that you described?

A. The purpose is to evacuate the content of the uterus in the safest possible way for the patient with the least complications, regardless of what methods I would choose or regardless what method the patients would prefer I use.

Q. Okay. Dr. Broekhuizen, do you ever treat women who present to you in the midst of a spontaneous second-trimester miscarriage?

A. Sure I do.

Q. And would the treatment that you offer to those women ever be covered by this law as you understand the law?

A. I think if patients present as a spontaneous second-trimester miscarriage, if in the absence of bleeding or infection, I would probably let the process naturally take place.

But in the scenario of infection or significant bleeding, I may be confronted with the situation that would be fairly similar as if I did an induction method pregnancy termination where I have to convert to a D&E procedure for maternal health reasons because now continuation of the natural process or continuation of an induction process will take more time, and in the context of bleeding or infection may increase her health risks and would increase the morbidity.

So I can think of the scenario where I would be [556] confronted with the same dilemma that I may encounter in the plan's pregnancy termination by an induction method.

Q. In ending the pregnancy using D&E techniques, is it possible, then, that you would extract the fetus to the point where the fetus is outside the woman's body past the fetal navel?

A. Again, if one were to convert, one would want to extract the fetus in the most safest and most expeditious way with the least potential risk for the mother. And then, since it is the extraction portion that would be the least risky part, right, one could encounter that same situation.

MS. GARTNER: Your Honor, may I approach to put up the other part?

THE COURT: Yes.

BY MS. GARTNER:

Q. Dr. Broekhuizen, this is the beginning operative section of the statute. The second sentence of this subsection, which is Section 1531(a), includes what is called "the life exception" to this law. If you could read that second sentence?

A. "This subsection does not apply to a partial-birth abortion that is necessary to save the life of a mother whose life is endangered by a physical disorder, physical illness or physical injury, including a life-endangering physical condition caused by or arising from the pregnancy itself."

[557]

Q. In your opinion, would this life exception enable you to perform the abortions that you currently perform in all situations of serious maternal health conditions?

A. Well, what troubles me about this language is that it is not clear to me who determines the necessity. Who defines what is necessary to save the life of the mother? What is the actual risk, you know? Is that a percentage, risk of mortality?

It certainly doesn't cover health complications like increasing the risk of needing a new kidney transplant in a sooner period of time. But as far as the right, so that troubles me, too. But who determines the necessity, and what is really "life endangerment" is what troubles me.

I think that I have seen patients, since I take care of patients who take very high risks in continuation of pregnancy. I have seen patient take risks that are as high as 30 percent. And I have seen patients who consider the risk of 2 percent of death insignificant

risk compared with the normal background risk of dying from being pregnant.

And I think that the personal choices and the personal circumstances that people have, the determination of what death may mean for their children, for their families, varies so significantly that I think that the only person who really can determine what risk for life one would take is the patient itself.

[558]

And then, how one reduces that risk would be up to me and the patient by what method to do it.

So in other words, that's—I would be very uncomfortable, because I would think that anybody could say:

> "Well, that wasn't necessary," while it was very necessary for that patient with those particular circumstances.

Q. Dr. Broekhuizen, you referred to or alluded to health conditions that might lead to the patient needing a kidney transplant sooner than otherwise. Was that —were you referring to a particular type of medical situation there?

A. Well, there are situations where people will have preexisting renal disease or, say, in the context of systemic lupus, where the process is an ongoing process, where the pregnancy may speed it up or the patient may be unwilling to accept that process.

So, there are situations where the issue is not life, but the issue is really health. And how does the pregnancy—how potentially can it effect the progression of the disease that the patient already has.

And, again, patients there will make individual choices about what they will accept as a health risk or not.

Q. Dr. Broekhuizen, thinking back to the patient you described, the first patient you described where you did the serial dilatation, the woman who had—I think had scleroderma and some other medical conditions, do you believe that this [559] exception would have applied to that patient?

A. I certainly would hope that exception would apply to that patient. There were at least five or six physicians involved in coming to the conclusion that this really represented a life-threatening—very immediate life-threatening risk. Not a life-threatening risk a few weeks down the road, which is more often the case.

But I am concerned that someone would take the position that it has to be at least 75 percent certain and may not have—may have taken the position that it wasn't necessary.

I don't know who is the best judge beyond the patient and the physician that she is making a choice with. Who can make—I don't think of better people who can make that choice than those two.

Q. And in the case of that patient with scleroderma, even if the induction was contraindicated for her because of her medical conditions, was hysterotomy an option for her?

A. Actually, the anesthesiologist and the pulmonary specialist and the critical care specialist and the cardiologist all felt that given the patient minimal amount of anesthesia or complications that could occur from the surgical procedure would be higher than any risk that could occur from the serial dilatation.

MS. GARTNER: Your Honor, may I approach the [560] witness?

THE COURT: Yes.

BY MS. GARTNER:

Q. Dr. Broekhuizen, I am handing you a copy of the entire act that is at issue in the case. And I have turned it to page S3-7, which is the second to last page. And I would like to direct your attention about two-thirds of the way down the page to the paragraphs that are marked "d-1" and "d-2."

If you could just take a look at those briefly.

A. I am reading them.

Q. Okay. Do you understand that these sections allow a physician who has been accused of violating this law to seek a hearing before their state medical board on whether the abortion was necessary for the woman's life, and that the findings of the state medical board could be made part of the record at the physician's criminal trial?

A. I am reading that that is in the law.

Q. Does the existence of this procedure before the state medical board give you any comfort that the abortions that you do to preserve maternal health or that you believe are necessary for the woman's life would not be found to violate this law?

A. I am not comfortable at all with this language as a protective mechanism, because it seems to me I would be indicted first, and then I would be subject to a hearing by a [561] state medical board of which I really do not know what experience, expertise they have in this particular situation.

And it is my understanding that—and so I think that it would indict me first, and then the mechanism of—the mechanism by which the state medical board could then decide I did the right thing already would have had significant impact on my ability to provide similar services to patients or probably could effect my career in a significant fashion.

Q. Dr. Broekhuizen, is it your understanding that you could avoid the reach of this act by inducing fetal demise before you begin the evacuation part of the D&E procedure or the induction procedure?

A. Yes. That would be a way of avoiding the consequences of this act.

Q. Do you discuss with your patients the option of inducing fetal demise by injecting digoxin into the fetus before the abortion?

A. Yes, I do.

Q. And do all of your patients choose to have fetal demise induced?

A. No, not all of my patients choose to have fetal demise induced.

Q. And why—

A. There are actually patients who do not want fetal demise induced.

[562]

Q. Why is that?

A. Especially in the context of the patients with lethal anomalies, patients do not feel that they need to witness a lethal injection, which would be under ultrasound guidance, and actually prefer to have an earlier delivery of a baby that cannot live. And some of them

actually do not mind if there was signs of life. And some patients have even expressed that that is what they would prefer to let the baby die in their arms.

And I think in some religions there is a difference between blessing and baptizing, and so there are patients who actually will travel from one—from Madison, Wisconsin to Milwaukee after the diagnosis of fetal anencephaly, because in one of the hospitals there they have a rule that it needs to be done after 20 weeks. And patients actually really choose not to have that done.

On the other hand, there are patients who—for whom that is a very comforting procedure to have taken place, you know, as part of the practice of termination procedure.

But, again, this is a very individual choice that patients may make on their set of beliefs and their comfort level.

MR. SIMPSON: Objection, Your Honor, as to lack of foundation and hearsay as to the religious beliefs and practices.

[563]

THE COURT: Overruled.

BY MS. GARTNER:

Q. Dr. Broekhuizen, one final question: if this law were enforced, what impact would it have on your practice and on your patients?

A. Well, it would—it certainly would make it more difficult. It would make it significantly more difficult to provide the medically necessary services that some

patients choose under the circumstances that I perform pregnancy termination.

And so the alternative of the lethal injection, right, would probably become more prominent. I would probably have to utilize that more to avoid the consequences of the law. But as I just explained, that may not really be in the best interest of the patients and what they would choose as the best method.

* * * * *

[571] * * * deposition.

A. Yes.

Q. And if you could read silently, please, lines 20 through 24 on that page.

A. I am reading them.

Q. Is that what you testified?

A. Yes, I did.

Q. And you said at line 20:

"QUESTION: Well, I can go on, just go on with the question. To follow up on that, are there instruments that you use for D&E that are specifically meant for dismembering the fetus?

"ANSWER: Yes, I do. Yes, they exist."

That is what you said?

A. Yes.

Q. So there are instruments specifically meant for dismembering the fetus?

A. Yes.

Q. Doctor, you've done approximately four or 500 D&E abortions; is that correct?

A. That's correct.

Q. What percentage of those abortions, of those D&E's involved some degree of dismemberment of the fetus?

A. I would say over 90 to 95 percent of the majority of cases.

Q. As far as you know, Doctor, you have never left fetal parts [572] after a D&E, have you?

A. To the best of my knowledge I don't, and I try to ascertain that I didn't leave any parts at the end of the procedure.

Q. And to the best of your knowledge you have not?

A. To the best of my knowledge I have not.

Q. Doctor, you believe that a physician can avoid leaving fetal parts in the uterus by doing a careful procedure in inspecting the parts carefully after evacuation, correct?

A. I think careful inspection allows for ascertaining that extremities, trunk, fetal head are there. I am not so sure there would not be part of fetal organs or small parts that are still in the uterus.

Q. The physician should be able to avoid that by doing a careful procedure and inspecting the parts carefully afterwards.

A. Yes. The goal is to make sure that there are no large—that to the best of your ability to see, most large parts are removed. It's similar looking at all the placental parts. One tries to reconstruct and feel all the placental parts are there.

And actually it's the feel inside the uterus. I use a blunt curette for that. That gives me the most com-

fort level that I haven't left any fetal parts or placental tissue behind in addition to the inspection.

Q. And by doing a careful procedure and a careful inspection [573] afterwards the physician should be able to avoid leaving any fetal parts inside the uterus?

A. The incidence of leaving fetal parts or placental parts should be minimal, but it is never zero.

Q. Doctor, if I could refer you to page 83 of your deposition.

A. Yes.

Q. If you could read to yourself lines 20 on that page through line 4 on page 84.

A. Which? Where do you want me to start?

Q. Again, silently, page 83, line 20, through page 84, line 4.

Is that what you testified?

A. That is what I testified.

Q. You said, question on line 20:

"Is one of the potential complications of D&E the retained fetal parts?

"ANSWER: That would be a complication if—I wouldn't consider it a complication. I think under—if one does a careful procedure, one should be able to not have that happen by careful inspection of all of the tissue and products that have been evacuated. So I always very carefully inspect what has been removed and try to avoid that from happening."

Is that what you said?

A. That is what I said.

[574]

Q. So the physician should be able to avoid leaving fetal parts by doing a careful procedure and a careful inspection?

A. That is what I said. I am reading ahead of myself here, what I said, but in the next answer I said:

"It is possible that it can happen." But—

Q. And you also said, did you not, Doctor, on line 7 on page 84:

"I think that one is not supposed to leave anything behind," correct?

A. That's correct.

Q. Now, Doctor, usually—I believe you've testified that after doing a D&E you examine the fetal parts, correct?

A. Correct.

Q. Usually in examining the fetal parts you don't actually see the bones, do you? You usually see the limb and the actual bone is in the limb?

A. You can sometimes see bone. Sometimes you can see just the limb.

Q. But usually you just see the limb, and the actual bone is in the limb?

A. Actually, when disarticulation takes place in the joint one can certainly see the end of the bone on inspection.

Q. The end of the bone. But usually the rest of the bone is inside the limb?

A. There are situations where actually the bone is crushed in * * *.

* * * * *

[577] * * * agreed with that statement.

THE COURT: Okay. All right.

BY MR. SIMPSON:

Q. Doctor, is it true after reading this testimony that the use of ultrasound makes the D&E much easier and much safer?

MS. GARTNER: Your Honor, I am sorry. I think Mr. Simpson has mischaracterized the deposition testimony. And so as what Mr. or Dr. Broekhuizen stated was on page 87, lines seven, eight, nine and ten:

> "That there are unusual situations where the ultrasound makes it much safer and has made the procedure much easier."

MR. SIMPSON: I will move on to the next question.

THE COURT: Thank you.

BY MR. SIMPSON:

Q. Dr. Broekhuizen, the use of ultrasound decreases the risk of injuring the patient with your instruments, correct?

A. Can you repeat that?

Q. The use of ultrasound decreases the risk of injuring patients with your instruments?

A. The use of ultrasound will allow me to avoid misdirecting the instruments that I place in the uterus.

Q. Thus reducing the risk of injuring the patient with your instruments?

A. That's correct.

* * * * *

[582] * * * examine the brain for pathologgical purposes?

A. That's correct.

Q. Isn't it true you sometimes choose to use a surgical abortion procedure in which you purposely deliver the fetus intact up to the head?

A. Can you repeat that question?

Q. Certainly. Isn't it true that you sometimes choose to use a surgical abortion procedure in which you purposely deliver the fetus intact up to the head?

A. I don't think I—I think I have answered the question on the direct. I think in a surgical procedure my goal is to evacuate the uterus in the simplest and safest way. And that it can occur that with sufficient dilatation I can deliver the body up to the head.

But that is not necessarily the purpose of the D&E procedure.

Q. Let's make sure, first of all, Doctor, that we have defined one or two terms. By "surgical abortion," we mean abortion with instrumentation, correct?

A. Correct.

Q. Induction is not surgical abortion?

A. That's correct.

Q. Doctor, do you sometimes choose to use a surgical abortion procedure in which you purposely deliver the fetus intact up to the head?

[583]

A. I have chosen—yes. The answer is: yes. The cases in patients with scleroderma and skeletal dyspla-

sia, it was the serial dilatation part that would consider the surgical if one were to define it as a surgical abortion or part of a surgical abortion. That was the mainstay of that approach.

But there the goal was to deliver as much of the fetal body in the particular circumstances of that case, that's correct.

Q. And, Doctor, this procedure in which you purposely deliver the fetus intact up to the head, you refer to that as "intact D&E," correct?

A. I don't think I have used the word "intact D&E" today. I may have used it in previous deposition, but I don't recall that I used that particular term today.

Q. You do refer to that procedure as "intact D&E." I am not talking about today, necessarily, but just in general?

A. Yeah. I may have referred to that procedure in that sense.

Q. And then, when you choose to use that procedure you then sometimes have to compress the head to complete the delivery, correct?

A. Sometimes decompress, sometimes decompress and compress.

Q. Doctor, you testified earlier that sometimes parents want an intact fetus for blessing or burial. Have you ever had the parent express that desire where you had compressed the head of the fetus to complete the delivery?

* * * * *

[584]

* * * * *

Q. Now, doctor, this procedure that you sometimes choose to do in which you purposely deliver the fetus intact up to the head, that is a new procedure, correct?

A. Not for me.

Q. Are you familiar, doctor, in the medical literature with references to what is sometimes called "intact D&E," sometimes called "intact D&X"?

A. I am familiar with the literature and the terminology.

Q. And that is a new procedure?

A. It is described. I don't know. It is not a new procedure in my practice. I have had to deal with situations in my practice in Africa in the '70's. And I have had to deal with fetal anomalies in the early '80's, that are similar to the situations that I described. And I have used very similar [585] methods and parts of techniques, albeit different medications and different instrumentation. And so conceptually for me this is not new.

What is new is the fact that it was kind of described as new or different from the destructive D&E procedure by other people who described it.

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[587]

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Q. As you say here, doctor, the intent—the use of serial dilatation to achieve sufficient dilatation to remove the fetus in intact is a new procedure?

A. I have problems answering this question. The patients with scleroderma, I performed the procedure before I ever read about Dr. Haskell's new procedure.

I would think that anybody who has performed pregnancy terminations for the indications—and I have been performing them for the last 20 years, right—has utilized elements of what Dr. Haskell describes.

I have never, you know, started some pregnancy termination listing concepts:

> "I just read about a new procedure written by Dr. Haskell, and I am going to do exactly what he was describing there."

[588]

And I think that would be true for many physicians who perform pregnancy terminations in the last 20 years for the indications that I described.

Q. Dr. Haskell gave his presentation in 1992, correct?

A. I don't know. I forgot.

Q. Are you aware, doctor, of any descriptions either in presentations or literature, any descriptions of Dr. Haskell's procedure before he made his presentation?

A. No. I am unaware. All I know is there are things that Dr. Haskell described that I know I did before. Maybe not in the sequence as described or in the sequence described by the ACOG.

Q. Doctor, the intact D&E procedure as you use it is characterized by serial use of osmotic dilators to achieve a greater degree of dilatation than you would do for a D&E by dismemberment, correct?

A. That's correct.

Q. So you do not normally use serial use of osmotic dilators in surgical abortion in the second-trimester?

A. I will only use serial dilatation if I find that after the first dilatation that I have not achieved sufficient dilatation to proceed in a safe manner for the procedure.

Q. And you always use serial dilation when you have chosen to use a procedure in which you purposely deliver the fetus intact up to the head?

[589]

A. Yes.

* * * * *

[591]

* * * * *

Q. Now, the first of those three cases I believe you testified earlier was a woman at 23 weeks, one day, who had scleroderma?

A. Correct.

Q. And one of the reasons that you wanted to do an intact [592] removal in that case was that a D&E involving disarticulation requires more instrumentation than intact D&E, correct?

A. And more anesthesia.

Q. And you believe that intact D&E carried less risk of causing damage to the uterus?

A. In that particular case, a surgical procedure like hysterotomy, induction and a D&E, conventional D&E procedure all in the opinion of physicians taking care of her carried more risk than the serial dilatation is the purpose of avoiding any of the anesthesia, prostaglandins, and allow partial delivery and then com-

pressing of the fetal head, which ultimately wasn't necessary.

Q. And you believe that intact D&E carried less risk in causing damage to the uterus?

A. That was not the primary reason. In this particular case, it was the fact that, one, if complications were to occur, like bleeding during the procedure or the anesthesia and analgesia necessary would make the patient more unstable than if this happened without utilizing any of these techniques.

* * * * *

[598]

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A. My intent was to do serial dilatation and achieve sufficient dilatation that I could do a total or partial extraction.

Q. And the patient suffered no ill effects as a result of that procedure?

A. No. The patient's recovered from the procedure and actually became better. Her medical condition improved. She was able to be extubated. She died from her—I happened to know that she died from her disease 18 months later.

Q. So, really, Doctor, as it turned out an induction could have been performed from the outset in that instance?

A. No, I would strongly disagree with that.

Q. Are you telling me, doctor, that the serial dilatation of the cervix did not lead to any uterine contractions?

A. I am sure the serial dilatation led to some degree of uterine contractions, but this significant less side effects or [599] potential adverse effects than the medication that one would have to use if one set out to do an induction.

* * * * *

[601] * * * contraindication. So it was not absolutely contraindicated. It was really the patient's request.

Q. And, in fact, I believe you testified to this earlier: the serial dilatation prompted labor to start, and she delivered the fetus intact without your using any instrumentation?

A. That's correct.

Q. So it really became an induction?

A. It became a total expulsion of the fetus without using the usual medications for an induction, which would be a prostaglandin or high-dose oxytocin.

Q. Wasn't misoprostol used in that case, Doctor?

A. No.

Q. Are you telling us, Doctor, that you disagree with the statement that that procedure kind of converted into an induction?

A. No. I think ultimately—I—my definition of what an induction is that one from the onset uses medication to start contractions that then leads to dilatation and expulsion of the fetus.

All right. This is—I would describe this as a serial dilatation with the intent or with the goal to do an extraction that led to enough prostaglandin release that led to spontaneous expulsion and neutron activity,

which I think is different, which are two different starting points and two different end points.

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[603]

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Q. Hydrocephaly is an excess of fluid in the skull, correct?

A. Correct.

Q. It is not necessarily fatal to the fetus, hydrocephaly?

A. Not necessarily. But in this situation it was associated with a chromosomal anomaly, yes.

Q. Doctor, one can deliver a living hydrocephalic infant vaginally by draining the excess fluid with a needle, correct?

A. Not necessarily.

Q. And in what cases can that not be done?

A. It really depends on how—it really depends on how macrocephalic the head is and how extensive the calvarium is distended.

One can drain the fluid, but that—there is the point of reaccumulation of the fluid. And that will happen during an induction period. And there is the issue that sometimes even while the fluid is drained the skull may not simultaneously collapse. It still may require some traction or some additional manipulation.

* * * * *

[611] * * * the standpoint of the mother to kill the fetus in the process, correct?

A. It's—you are now referring to pregnancy terminations before 24 weeks?

Q. Or after 24 weeks, if there is some reason for it.

A. After 24 weeks, if there was a lethal fetal anomaly, right, we would—that would be in the context of the palliative of care, and that would be a different scenario.

If it was after 24 weeks and there was no fetal anomaly, right, and pregnancy termination at that point was necessary, obviously I would make all the effort to actually make sure that the baby had all the options to survive.

At less than 24 weeks, right, that would be not necessary.

Q. So just to clarify, concrete example. Let's say the fetus is anencephalic, all right? The woman is at 24 weeks, and the decision is made to terminate the pregnancy. There is no medical reason from the mother's standpoint to ensure that the fetus dies in the course of the abortion.

A. That would be correct in that scenario.

Q. Now, Doctor, you've testified, I believe, that you believe intact D&E reduces the use of anesthesia, reduces blood loss and reduces the risk of complications as compared to D&E by dismemberment? For each of those risks—

A. I think I said "it may." I think I said as well that we [612] really have no comparative series that we could call to some reliability.

Q. Doctor, your belief regarding the use of anesthesia is based on a belief that intact removal is quicker than dismemberment, correct?

A. That's correct.

Q. None of your patients who have had a D&E by dismemberment have ever had a complication from anesthesia; isn't that right?

A. That's correct.

Q. So it would be fair to say in your view as far as anesthesia is concerned, that intact D&E presents a hypothetical benefit, correct?

A. Well, the two patients out of the three never—really, none of these patients ever had anesthesia.

Q. I am not talking—

A. So I couldn't conclude from there.

Q. I am not talking just about those three, Doctor. I am talking about your experience, in general. Would it be fair to say that your view as to D&E, intact D&E reducing the use of anesthesia that is a hypothetical benefit, correct?

A. I think I refer to it earlier as common sensical conclusion, but it is hypothetical in the sense that I do not have peer-reviewed data or method analysis to support it.

Q. You are not aware of any studies showing that intact D&E is quicker, are you?

* * * * *

[615] * * * evidence there to state that that is not a message of dilatation in every case, and I think I testified that I am not sure for both methods, induction or

D&E procedures, that that is true after—between 20 and 24 weeks. And therefore I counsel patients on the possibility of cervical incompetence and subsequent pregnancy.

Q. Now, Doctor, when you employ serial use of osmotic dilators, you put a greater number of dilators into the cervix each time, correct?

A. That's correct.

Q. You have put as many as 20 or 25 dilators into a woman's cervix at one time?

A. That's correct.

Q. Doctor, if one wanted to study whether the cervical dilatation needed for an induced abortion increases the risk of cervical incompetence in pre-term labor, you would have to follow a group of women who had undergone an induced abortion, you would have to follow them into a subsequent pregnancy, correct?

A. That would be—you would have to follow their—into a next pregnancy.

Q. And the larger that group of women the more reliable that study would be?

A. That's true. I think probably impossible to ever conduct a study of that kind.

* * * * *

[634]

A. Secondly, it would not come close. The injury would not come close to the left and right uterine artery.

Q. Doctor, you have given an injection of digoxin to cause fetal demise before an induction abortion at least 30 or 40 times?

A. That's correct.

Q. Now, you wouldn't, of course, do that if you thought the injection was unsafe to the mother?

A. That's true.

Q. Doctor, in the times that you've used digoxin for fetal demise you have never seen any maternal complications from its use?

A. I haven't.

Q. You think that there would rarely be any significant risk to the mother even if the digoxin was accidentally injected in the maternal bloodstream?

A. I think that is correct with the dose we use.

Q. You have always injected digoxin into the amniotic fluid, correct, never into the heart?

A. That's correct.

Q. All right. Doctor, the effectiveness of causing fetal demise in that way is pretty good, isn't it?

A. It's—I do not know in my own experience how the effectiveness is, because I haven't studied it. But I have had at least two failures. I am—I know there is literature out * * *.

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[641]

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[BROEKHUIZEN—REDIRECT]

Q. Okay. I want to clarify, Dr. Broekhuizen, a little bit about your medical practice. If a woman were over 24 weeks pregnant and needed to end her pregnancy due to a maternal health condition, what would you do? How would you treat that situation?

A. Well, I would—after 24 weeks I would have two patients. I would have the unborn and I would have the mother. Different health conditions would have different urgencies for delivery. But even in some of the urgent situations there may be enough time to actually give steroids to the mother to improve the [642] outcome for the neonate. Then one would have to make a decision about what would be the safest method of delivery. And that would again be the cesarean section versus the vaginal delivery, which in that case would be induction method, but a very different induction method with much more physiological utilization of oxytocic drugs. And the point would be to end the pregnancy and undo the risk for the mother. And at the same time optimize the outcome for the neonate.

Q. If you are ending a pregnancy after 24 weeks because of a maternal health condition, do you ever use a destructive act with respect to the fetus?

A. I would never use a destructive act. Only time I would use—would use the word pregnancy's termination" or induction with palliative care being in the context of lethal fetal anomaly.

Q. So to clarify that, you do on occasion end a pregnancy for a lethal fetal anomaly after 24 weeks?

A. That's correct.

Q. And how, in those instances, in your practice, how would you go about doing—just very briefly, how do you end the pregnancy for a lethal fetal anomaly after 24 weeks?

A. Almost exclusively that would be an induction method. Pretend there are these situations where one would have to potentially convert to a D&E procedure or to some elements of a, D&E procedure or where one can anticipate a disproportion [643] during vaginal birth would require a decompressing method as described in the hydrocephaly or in the fetal ascites or nonimmune hydrops earlier today.

Q. But those are all lethal fetal anomalies; is that correct?

A. Those are lethal fetal anomaly. And in my institution, in Froedtert Hospital that would be the rule. All of those patients actually would have had consultations by a neonatologist and by pediatric subspecialties in regards to condition of the fetus and what they could expect as far as when death would occur and what kind of supportive care until death would be provided.

Q. And have you ever done an abortion for a nonlethal fetal anomaly after 24 weeks?

A. Never.

Q. Just specifically with respect to the scenario the patient you talked about who—where the fetus was extremely macrocephalic and she was approximately 28 weeks pregnant and you to use the trocar to reduce the size of the fetal head, was that a lethal fetal anomaly in her instance?

A. Yes, it was.

Q. And was that—what was—what—was there something besides hydrocephaly that made this lethal?

A. It was lethal chromosomal anomaly. I forget. It was 13 or 18. It was one of those.

Q. And does that mean Trisomy 13 or Trisomy 18?

[644]

A. Correct.

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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

No. C 03-4872 PJH

PLANNED PARENTHOOD FEDERATION OF AMERICA, INC. AND PLANNED PARENTHOOD GOLDEN GATE, PLAINTIFFS

v.

JOHN ASHCROFT, ATTORNEY GENERAL OF THE UNITED STATES, IN HIS OFFICIAL CAPACITY, DEFENDANT

TRANSCRIPT OF TRIAL PROCEEDINGS
Monday, Apr. 5, 2004
Volume 4

BEFORE THE HONORABLE
PHYLLIS J. HAMILTON, JUDGE

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* * * * *

[MITCHELL CREININ, M.D. - DIRECT EXAMINATION]

[646]

* * * * *

Q. Dr. Creinin, I am handing you what is Exhibit 28, which is a copy of your curriculum vitae.

Did you prepare this document?

A. Yes, I did.

Q. Is the information on this true and correct?

A. It is true and correct through January 15th, 2004.

Subsequently, I have been promoted to professor of epidemiology in the Graduate School of Public Health at the University of Pittsburgh, coincident with my promotion to professor in my primary department, and there is a few publications that were in press that are now published, and a few more that are in press, and a few more studies that I have funding for.

Q. And with those exceptions, is this accurate?

A. Yes, it is.

MS. KRASNOFF: We would like to move Exhibit 28, Dr. Creinin's C.V. into evidence.

MS. CLARK: No objection.

THE COURT: All right.

THE CLERK: 28 into evidence.

[647]

(Plaintiffs' Exhibit 28 received in evidence)

BY MS. KRASNOFF:

Q. You can just leave that up there.

Dr. Creinin, where did you do your medical training?

A. I went to a medical school at Northwestern University and did my residency at the University of California San Francisco.

Q. And do you have special training beyond your OB/GYN residency in performing abortions?

A. I did a fellowship in family planning at the University of California San Francisco.

Q. What is a family planning fellow?

A. A fellow is a person who has completed their residency training and then has gone on after residency training to spend time training in both clinical care and research related to abortion and contraceptive services, and other early pregnancy issues that are similar. For example, miscarriage and ectopic pregnancy.

Q. How many family planning fellows are there in the country?

A. There are 12 fellowship sites, and most of the fellowship sites have both a first-year and a second-year fellow. So there are roughly about 24 fellows currently.

Q. How many were there when you were a fellow?

A. One.

Q. Was that yourself or one in addition to you?

[648]

A. There was just myself.

Q. And you stated, I think, you were a fellow at UCSF; is that right?

A. That's right.

Q. Is one of the other fellowships today at Northwestern?

A. Yes, it is.

Q. Who is the director of that?

A. Cassing Hammond.

Q. Is one of those fellowships at Colombia, as well?

A. Yes, it is.

Q. Who directs that fellowship?

A. Carolyn Westhoff.

Q. Is a third one of those fellowships at Oregon Health Sciences University?

A. Yes, it is.

Q. And, if you know, Dr. Creinin, is Joanne Cain the chair of the OB/GYN Department at Oregon Health Sciences University?

A. Yes, she is.

Q. And, also if you know, today are there still fellows at UCSF?

A. Yes, there are.

Q. In your current practice, do you currently supervise a fellow?

A. I have two fellows, a first-year and a second-year fellow.

Q. What kind of training do family planning fellows receive [649] that other obstetrician/gynecologists do not receive in their training?

A. Most of the fellows, including at my center, receive specialized training in research, in getting Master's Degree in either public health or a Master's of Science degree in research. So they learn a lot more about appropriate ways to do research and they also do research as part of their fellowship in the areas that we have discussed.

The clinical training is specialized training in abortion services between four and 24 weeks, including both medical abortions between four and nine weeks and surgical abortion procedures through 24 weeks. And then both research and clinical care in associated areas like ectopic pregnancy and miscarriage, so there is the

balance between contraception and abortion and between research and clinical care.

Q. Are you a board certified obstetrician/gynecologist?

A. Yes, I am.

Q. Where do you currently practice medicine?

A. At the University of Pittsburgh.

Q. Is there a name of a hospital that you work at?

A. Magee Women's Hospital at the University of Pittsburgh.

Q. Please describe your practice at the University of Pittsburgh?

A. I spend about 40 percent of my time performing clinical research, and about 20 percent of my time as an administrator [650] and teacher, and 20 percent of my time in private practice, seeing patients in private practice, and another 20 percent of my time at Planned Parenthood as the Medical and Laboratory Director.

Q. How long have you been at the University of Pittsburgh?

A. Almost 10 years.

Q. And do you perform abortions at the University of Pittsburgh?

A. Yes, I do.

Q. By what methods and what gestational age ranges?

A. I provide medical abortion services up til nine weeks of pregnancy, nine weeks' gestation and surgical abortion services from four to 23 and six-seventh's weeks.

Q. Those are measured by the first day of the women's last menstrual period?

A. Correct or as adjusted by ultrasound to menstrual age.

Q. What methods of surgical abortion do you provide?

A. Suction abortion typically through 14 to 15 weeks and it varies by patient as far as whether in that range of 14 to 15 if the suction abortion is performed or dilation and evacuation is performed, and, again, that's an individual circumstance and beginning at about 14 to 15 weeks through 23 and six-seventh's weeks, then it's a dilation and evacuation procedure.

Q. And you mentioned 23 and six-seventh's. Do you use anything except gestational age to determine the limit to which [651] you perform abortions?

A. No. When looking at the upper limit, I also use ultrasound criteria to look at the biparietal diameter, which is the diameter of the head. And anything more than 56 millimeters in diameter is something that I don't feel I can do routinely by dilation and evacuation.

Q. Fifty-six millimeters of biparietal diameter, can you tell the court how large that is in both inches and centimeters?

A. That's 5.6 centimeters, which is about two and a half, two and a half inches. It's about like that (indicating).

Q. Where do your abortion patients come from?

A. In my private practice, the patients are referred to me by either themselves or by their health care

provider, which is—and most commonly it's their obstetrician/gynecologist.

Q. And what geographic distance do you see patients from?

A. In the Pittsburgh area, there's—there are abortion providers in our city. The vast majority of which also practice at my hospital, although there's not a tremendous number.

Once you get outside of our area, there are no abortion providers. And it's—we have a catchman area of approximately three hours around the Pittsburgh area in travel time, which include women from southern New York, Eastern Ohio, Northern Virginia and all the way into Pennsylvania to approximately the mid-portion of the state.

[652]

Q. And they come from so far away because there are no other providers; is that correct?

A. Correct.

Q. And you mentioned that you are a professor as well. As a professor, do you teach all the methods of abortion that you described that you provide?

A. Yes, I do to students and residents, OB/GYN residents and Internal Medicine residents at times if they want to learn, and then to the fellows also.

Q. I think you mentioned this in updating your curriculum vitae, but is your only faculty appointment in the medical school?

A. No, it's not.

Q. What is your other appointment?

A. I have an appointment at the Department of Epidemiology at the Graduate School of Public Health.

Q. You may have mentioned this a little bit in relation to your fellowship also, but do you have special training that relates to epidemiology?

A. I do. When I was doing my fellowship in family planning, I also did a fellowship at the University of California San Francisco in clinical research. That was a one-year fellowship. And that was what was available at the time. Currently that same type of fellowship is the type of work that earns a Master's of Science degree, just at that time it did [653] not earn that type of degree, but it is that same training.

Q. And you also mentioned you work at Planned Parenthood of Western Pennsylvania. What is your job there?

A. I am the Medical and Laboratory Director at Planned Parenthood Women's Health Services, which is one of the clinics within the Planned Parenthood of Western Pennsylvania system.

Q. And how long have you held that position?

A. Nearly 10 years.

Q. And does Planned Parenthood Women's Health Services provide abortion services?

A. Yes.

Q. To what gestational age?

A. To 18 weeks and zero days.

Q. Do you yourself provide those services?

A. Yes, I do.

Q. By what methods?

A. Medical abortion up til nine weeks' gestation, and surgical abortion between four weeks and 18 weeks, zero days.

Q. And surgical abortion, do the procedures that you do break down by gestational age the same as at the University of Pittsburgh?

A. Correct. 14 to 15 weeks at the breaking point for suction and then 14 to 15 to 18 weeks for dilation and evacuation.

Q. You testified that you teach and perform medical and surgical abortions. Do you have any experience with induction [654] procedures?

A. Yes, I do.

Q. What is that experience?

A. I learned and performed induction abortions when I was a resident in obstetrics and gynecology, also during my fellowship, and then also for the one year when I was on faculty at the University of California San Francisco before I moved to Pittsburgh, and once I moved to Pittsburgh, I no longer performed them.

Q. Do you have any publications related to induction?

A. I do. I have a book chapter in Gynecology and Obstetrics, which is a textbook by, edited by Jack Sciarra, S-c-i-a-r-r-a, and that was published in—that was printed in 1999, and there's an updated version that is coming out that is of the same chapter.

Q. And am I correct you were the author of the chapter in 1999?

A. Correct.

Q. And you are co-author of the chapter that's in press now?

A. Correct.

Q. Is it your understanding that that's a well-regarded textbook in the medical community?

A. Yes, it is.

Q. Other than that textbook, do you have other publications in the field of gynecology?

[655]

A. Yes. I have about 70 publications in peer-reviewed journals, either first authored or co-authored, and then numerous other invited review articles, many in peer-reviewed journals, and book chapters and a couple of books that I am an editor or co-editor of.

Q. What are the major subjects that you've published as an author or co-author?

A. Contraception, abortion, ectopic pregnancy, miscarriage are the bulk of the area. There are some early publications related to multiple pregnancies but primarily the focus is on abortion and contraception.

Q. And you mentioned you also conduct research at the University of Pittsburgh. Can you describe the general areas in which you perform research?

A. The same areas, contraception, abortion, ectopic pregnancy, miscarriage.

Q. Is both your research and your publications, are they reflected on your curriculum vitae?

A. Yes, they are.

Q. So we've talked about a bunch of components of your practice and you gave me a break down, I think, at the beginning, a percentage.

What percent of your practice overall involves seeing patients or patient care?

A. Roughly 90 percent. I have only about 10 percent of time [656] that's purely administrative.

Q. So when you say you are doing research or teaching, that involves patient care as well; isn't that right?

A. Right. It's clinical research with human subjects and the teaching is, although part of it is lectures, the bulk of it is working with residents and students while seeing patients or taking care of patients.

Q. Dr. Creinin, have you ever provided expert testimony before in a case involving a statute that regulates abortion?

A. No, I have not.

Q. And other than your out-of-pocket expenses, are you being compensated for your testimony in this case?

A. No.

MS. KRASNOFF: The plaintiffs would like to move to qualify Dr. Creinin as an expert witness in the area of gynecology and the subspecialty of abortion practice.

THE COURT: All right. Any objection?

MS. CLARK: No objection.

THE COURT: All right. He will be accepted as proffered.

BY MS. KRASNOFF:

Q. Dr. Creinin, you are here today to offer expert opinions about the Partial-Birth Abortion Ban Act of 2003; is that correct?

A. Yes.

[657]

Q. Are you familiar with that act?

A. Yes.

Q. Is it your opinion that that act will ban some of the abortions that you perform?

A. Yes, it will.

Q. I want to talk to you about how you perform—those are by D&E method; is that correct?

A. Yes.

Q. And I would like to talk to you about how you perform D&E abortions and why you think it is that some of those abortions would violate the act. So I want you to walk us step by step how you perform a D&E abortion.

So, let's start with the dilation. What do you do to dilate the cervix for women with a gestational age of 14 weeks LMP or greater?

A. Most commonly between 14 and 18 weeks, I will use a type of dilator called the lamicel, l-a-m-i-c-e-l, which comes in two sizes, 3 millimeters and 5 millimeters.

And it's a firm dilator that when it—when the water is applied to it or it gets moist, actually when it gets moist after it is put in the cervix and it gets moist, it immediately softens. The primary function of the dilator is that it's impregnated with magnesium, and

putting it in the cervix allows the magnesium to locally within the cervix to soften it and it activates enzymes present in the cervix to [658] soften the cervix. Normally the cervix is pretty firm like the end of your nose and the lamicel will cause a cervix over a period of as little as two hours and as much as 24 hours to soften significantly, and the length of time will vary depending upon the gestational age, the history of the patient, other factors that will come into play.

Beyond 18 weeks, then most commonly I will use dilapan, d-i-l-a-p-a-n, depending on the patient's parity and other factors, for example, she's had prior cervical surgery, I may first use lamicel for a couple of hours to soften the cervix to allow me to put an adequate number of dilapan dilators in, and then the dilators will be left in place on average about 24 hours though that may vary depending on when I saw her in the office, when she is scheduled in the operating room, if the operating is delayed a little, so there can be a little variance.

Q. We have heard testimony about osmotic dilators. That's one term people have used. Are lamicel and dilapan osmotic dilators?

A. Yes. Osmotic means absorbs or likes water. So the moment they get moist, they begin to function.

Q. And most of the other testimony has also been about laminaria. Are lamicel and dilapan the same or different from laminaria?

A. They are osmotic dilators like laminaria but they're [659] different. Laminaria is rolled seaweed and will serve the same function as dilapan, but they are just different.

Q. And why do you prefer dilapan or lamicel?

A. Especially the difference is really between the dilapan and the laminaria. I prefer dilapan because I found in my training and in my clinical experience that with dilapan I don't need to put as many dilators in to achieve the same amount of dilation than I would get with laminaria.

And it also makes it a lot easier both for me, as the clinician, and for the patient in that I can usually get in a sufficient number of dilators with one attempt as opposed to with laminaria, we may need multiple times, especially in somebody who has never been pregnant before.

Q. Do you always try to insert the same number of dilapan?

A. No.

Q. For an abortion at say 20 weeks, for example, how many dilapan would you insert?

A. Roughly five, but it, that's the—every patient is little different. So there may be times when I only put in four and feel that in that patient's situation that four will be sufficient. And, again, there is those kinds of factors, but roughly five is what I attempt to put in.

Q. How long do you leave the dilapan in?

A. Roughly 24 hours as stated before.

Q. And what happens to the woman after the dilapan are [660] inserted?

A. She then can go home. We give her very thorough instructions about what to expect after both dilators are placed, as well as what she can expect for after the abortion so that she has all of these instructions in writing with her.

Obviously, long before this, we went over the procedure and the options, et cetera, so these are just instructions now for once we have started the process.

So, for most women, they will experience very mild cramping. They are instructed just to use Advil or Aleve as they would for menstrual cramping. They're instructed to call us if they have severe cramps that require more attention. I would say once or twice a year I get a phone call from a patient saying that she needs something more than the Advil or the Aleve.

Whenever the patients come back at the scheduled time for their surgery, I always discuss with them if they had any problems. And none of my patients have said, "Well, I probably should have called, but I didn't." So, again, it's very rare that there's anything of any significance from the dilator placement. Usually they can go home and do normal activities.

Q. Do you ever require the woman to come back for another insertion of dilapan?

A. In individual circumstances, if I feel I didn't get enough |661| dilapan in her cervix that I would safely be able to perform a procedure, then I have to start again individualizing, and there is not a number of things I could do, the most common thing I would do is either have her come back the next morning, put in more dilapan and do the procedure much later in the day or even then delay the procedure, have her come back, put in more dilapan and do the procedure a day later.

There have been a few instances where based on circumstances related to how far she lived away, or her medical condition, I can't remember the specifics, but there have been a few circumstances where I have also

given her misoprostol vaginally a few hours before the procedure to aid the dilapan, but, again, these are individual circumstances where I have to use my clinical judgment.

Q. Do you routinely use misoprostol?

A. No.

Q. You said that—you testified that you prefer dilapan because you find it is more reliable.

Can you predict when you insert the dilapan exactly how much dilation you are going to be able to get?

A. No.

Q. On average, how much dilation will you try to achieve for an abortion after say 18 weeks?

A. For my patients when I do procedures, after 18 weeks, somewhere between about two to two and a half centimeters is [662] what I require.

And when I remove the dilapan, during the procedure, the first thing I do is assess to see if I feel there's at least a minimum amount, enough that I am content with that I feel I can safely proceed and it's not unusual to have more than that. Again, that is going to vary by patient based on her parity and past medical history, et cetera.

Q. What is her parity?

A. Parity is how many deliveries she has had.

Q. If that happens and you remove the dilators and you find you have more than two, two and a half centimeters, is that a bad outcome?

A. No. That would make the procedure even easier. I am more interested in the minimal amount, not the maximum that I obtain.

I want—I judge the number of dilapan based on making sure I get the minimum amount without putting in so many that I make her uncomfortable or get more dilation than I absolutely need, which I have found at times can cause patients to go into labor or deliver.

And in talking with the patients ahead of time, they are choosing a D&E procedure rather than a labor induction because they don't want to go through labor. So, I am trying to balance all of those factors and deciding how many dilapan I insert for that individual patient.

[663]

Q. Now, I want you to go through what you do step by step after the cervix is adequately dilated. If it helps you at any point, we have these diagrams for you to refer to.

A. Beyond 18 weeks, I only perform those procedures in the operating room at Magee Women's Hospital. I don't do those procedures at Planned Parenthood.

Most commonly the patient gets a—has conscious or deep sedation by an anesthetist or anesthesiologist—I should is say anesthesiologist because it can be an anesthetist working with the anesthesiologist. In rare circumstances, the patient will receive a spinal anesthetic or even more rare general anesthetic but this is all decided ahead of time in consultation with the patient and the anesthesiologist.

Once we are in the operating room and she's placed with her legs up in stirrups in a lithotomy position and she has received her anesthetic, I will put in a speculum and remove the dilators.

I will then use a sterile cleansing solution, most commonly iodine, to clean the cervix and vagina, and the area right around the introitus. And then I will give a local anesthetic which also contains a small amount of vasopressin, which is a medicine to help constrict the blood vessels in the cervix, in the lower portion of the uterus.

I will then use a grasping instrument to hold on to the cervix, which is called a tenaculum, and then I will pull [664] on the tenaculum—actually, I will pull on the tenaculum to both stabilize the cervix, I can hold on to it, but I also want to change the position of the uterus.

Is it okay if I get up?

THE COURT: Sure.

THE WITNESS: So this diagram is kind of difficult because the vagina really isn't this long and the uterus is bigger because it has a pregnancy in it, but the uterus does sit at an angle to the vagina. And actually in an enlarged uterus at 18 weeks, the sacrum, which is here, the sacropromontory, the uterus has grown to here (indicating) where it's always going to be tipped up because it hits this bone and moved up.

So it is important with the tenaculum to pull down on the cervix to straighten that angle more so that the instruments when they pass into the uterus are going straight into the uterus as opposed to trying to maneuver this angle. That's all to try and reduce the risk of perforation.

Now, the speculum, which has blades—actually, if you imagine this straightened out, that will fit into the, what is called the fornices. And actually at times, almost prevent the uterus from coming down, so it's not infrequent that I will actually even remove the speculum and do the procedure without a speculum or use a weighted speculum, which is an instrument that just kind of hangs on the perineum.

[665]

THE COURT: Other doctors have testified as to bringing the cervix down almost to the introitus.

How does that happen if there is a speculum inside?

THE WITNESS: The speculum actually almost gets pushed out. So, depending on the woman's parity, how many deliveries she has had, the more para she is, the more it comes down. That's why in those situations you need to either sit there with the speculum halfway out or remove it and use either a weighted speculum or no speculum.

The cervix very commonly ends up very close to the opening, if not all the way down at the opening. And, again, you have to judge individually what happens. So that's what the tenaculum does. And then—

BY MS. KRASNOFF:

Q. What do you do to evacuate the contents of the uterus?

A. The first step I take is, again, most commonly in every patient I have to sometimes do variations based on whatever is going on.

Most commonly the next step would be to rupture the amniotic sac using a cannula. Obviously if she has already had ruptured membranes, I wouldn't do that. Most commonly I would then take an 11 millimeter cannula and insert that in the cervical opening while under direct visualization with ultrasound, and use that with the suction on it to break the [666] amniotic sac to drain the amniotic fluid so all of the fluid is removed first.

In situations where I can't with the cannula break the amniotic sac, I will actually, with a small ring forceps, just grab the sac and pull on it to break the sac. So then the fluid can drain, I can then put the cannula in and drain all of the amniotic fluid. It is important to drain the fluid first to—when the uterus decompresses, in other words, remove the fluid, the uterus, the first thing it will do is to contract and that brings all of the fetal parts down into the lower part of the uterus because my goal is just to instrument in the lower part of the uterus. I don't want to reach up high because that's how you can cause uterine injury.

So, after I drain the amniotic fluid, I'll then most commonly use bierer forceps, that's b-i-e-r-e-r, although for gestational ages that are closer to 18 weeks or at times where I may not have—where I've put in, the simplest way to say it is in gestations closer to 18 weeks sometimes the dilation is adequate enough for sopher forceps, but not bierers. They are very similar, just the size is different. Sophers are about 1.5 to 1.6 centimeters in diameter and bierer are most commonly about 1.9 centimeters. So either one can be used. Obviously, the more advanced the gestation, the more dilation there is, and the bigger forceps would be used.

Using the forceps, then I would open them, insert [667] them through the cervix opening. As I get close to the—as I begin to enter the uterus, so that I can open the instrument as widely as possible in the lower uterine segment, and it is not very wide, you are limited by the uterus itself, but just staying in the lower uterine segment, if possible, to grasp whatever is there. That's the basic concept, but then you have to use all—because all of this is done under ultrasound guidance, my goal is really to grab a lower extremity or some other portion other than the head. So what I am going to do is vary by the fetal position.

If it is head first, it's very, very, very difficult to try and grasp the head as the very first thing. So, with every D&E, the way I have been taught, the way I have always done it, the way I have always taught it is to try and grab a lower limb to convert the position to breech and then proceed with the evacuation. If it's already breech, or if it's transverse, that's easier to grab a lower extremity.

After grabbing the lower extremity, I am going to pull the pregnancy or pull whatever part I have grasped through the open cervix until there is resistance from the lower uterine segment and the internal os. My goal is to try and remove the fetus as intact as possible. The fewer passes, the safer it is for the woman.

So, as I pull down, the uterus is going to tell me how far I can go just by the resistance I get. So when I meet [668] resistance, I will continue to pull, and it's the pressure of the fetus against the lower uterine segment that actually results in dismemberment of the fetus. And where that is going to happen on the fetus will vary from patient to patient.

As the fetus—tissue that I am holding on to gets—is in—

Q. I want to break it down. You just told us a lot of things you do.

A. I am just proceeding through.

Q. That's okay. I am going to stop you and ask you some questions about how much—what you've told us so far.

A. Okay.

Q. I just want to make it clear, you are always doing post-18 week procedures under ultrasound guidance; is that correct?

A. Correct. I use ultrasound guidance for all of my procedures where any instruments are placed in the uterus other than a suction cannula.

Q. Can you explain why it is that you think it is beneficial to grasp a lower extremity regardless of the presentation of the fetus?

A. As I said earlier, it's incredibly difficult to grasp the head first. The head, until about 34 weeks of pregnancy, is much larger than any other part of the fetus.

So, if I am trying to grasp the head and there's other small parts behind it, it just becomes a physical [669] difficulty in grasping the head.

So, again, from the way I was taught from the very beginning, and it is almost common sense if you think about it, you convert the fetus to breech so that's where especially using ultrasound guidance, the safety comes in because I am going to watch my instrument, guide it to an extremity, so that when I teach the

procedure or I ever talk about it, this is a standard way of doing dilation and evacuation.

Q. So is it sometimes the case that the fetus is presenting in a head first or vertex presentation and you would grasp a lower extremity and rotate the fetus so that it is feet first?

A. Virtually all the time. It is on rare circumstances that I get the head first and it's usually only because the head is so applied to the cervix I can't really get passed it to try and get a lower extremity. And I can think of once or twice in my entire career that I can think that I have done that.

Q. This is because you think it is safer for the woman to grasp the lower extremities first; is that correct?

A. Yes, that's the way the procedure is done.

Q. Are you aware, Dr. Creinin, that one of the congressional findings of the act that's at issue in this case states that converting the fetus to a breech presentation increases certain risks and some of the risks they name are uterine rupture, abruption and amniotic fluid embolus.

Do you agree with that finding?

[670]

A. Not at all.

Q. I want to go through each of those risks and have you explain what they are and why you think it is that that finding is incorrect.

A. Okay.

Q. What is abruption?

A. Abruption is premature separation of the placenta from the uterus. And that wouldn't apply in the situation because my goal is to remove the placenta as part of the procedure.

And sometimes it comes out as one of the first things I remove, sometimes it comes out in the middle of the procedure, I am going to grasp whatever I am grasping, and when I get a hold of it, I am going to remove it.

So those findings apply to cases where a delivery is being done with the intent of a live fetus being born, but separating the placenta from the uterus is an innate part of the D&E and has no implication here at all.

THE COURT: Excuse me. In a live birth situation, you don't want the placenta to come out even in part before the baby comes out.

THE WITNESS: Exactly because the fetus is getting its oxygen and nutrients through the placenta. And an example would be a woman at 30 weeks of pregnancy starts to have bleeding because the placenta separates prematurely. She can not only lose a lot of blood, but the baby could die. So that [671] that would be a potentially catastrophic situation.

Or there are maneuvers done at term, for instance, internal podalic version, which you have heard about, at term and the placenta separated and the fetus was unable to be removed right away, but the fetus would be stuck in the uterus with the placenta separated and no way to get oxygen. So at term, that would be important, but as part of an abortion procedure, it's completely irrelevant.

* * * * *

[673]

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Q. Move on to amniotic fluid embolus. Dr. Creinin, what is amniotic fluid embolus?

A. That's when the amniotic fluid enters the woman's circulation usually through a sinus, which is a large opening, in the lining of the uterus that would be part of the way the blood was getting to the placenta from the woman.

So, again, at a D&E procedure, since the first part is to remove the amniotic fluid, that's a moot point since it's already been removed as part of the procedure.

Q. So, just to be clear, it's your opinion that turning the fetus in utero would breech the presentation in a D&E doesn't cause any greater risk of amniotic fluid embolus than if you do not do that conversion?

A. First of all, amniotic fluid embolus is so incredibly rare, it would be hard to show any increase risk at this gestational age.

THE COURT: Can you describe what it is again?

THE WITNESS: I am sorry. The amniotic fluid, when it gets into the woman's bloodstream, so it gets in through some openings in the uterus. So if it gets into her bloodstream, it will first go up to the heart and then into the [674] lungs. And in the lungs, I apologize, I didn't say this earlier, in the lungs it causes an incredibly fast tissue reaction that will cause her to quickly not be able to exchange air across her lungs. She will become hypoxic, which means has low oxygen, go into a respiratory arrest and then cardiac arrest. It can lead to—the heart has its own little brain that makes it

pump or it makes it beat at certain rates so the electrical system of the heart can still be working, but the heart muscle itself doesn't respond to it at all. So if an EKG monitor was on the woman, it would look like everything is normal, but her heart isn't pumping. These are things that can occur with amniotic fluid embolus.

THE COURT: Is it fair to assume then, if there was such an occurrence, that that would necessarily follow from a perforation of the wall of the uterus? Is there any other way for it to get—

THE WITNESS: Not really. It's just from the openings that are there, where most commonly where the placenta is attached. So, it's not from a hole in the uterus, it could just be that when the placenta detaches and some of those openings are exposed that amniotic fluid could get in.

Again, with D&E procedures, the amniotic fluid is primarily removed first before any of those things occur.

THE COURT: Okay.

THE WITNESS: It's an incredibly rare occurrence at [675] term let alone even at this gestational age.

THE COURT: Thank you.

BY MS. KRASNOFF:

Q. What would be the difference of why that would occur at term versus in a D&E? You've testified to this, but just to make it clear.

A. At term, the amniotic fluid is, number one, still there, and then even in a woman with ruptured

membranes, the amniotic fluid primarily comes from the fetal urine, so the fetus is still peeing inside. And also as a woman going through delivery, if you can imagine the head going through the cervix at term, it wedges in, so as it pees inside, the fluid is going to rebuild up inside the uterus. So that if abruption was to occur during delivering, there still would be fluid there. Whereas, again, during an abortion at this point in pregnancy, it is relatively a moot point. It is an incredibly rare occurrence to start with.

MS. CLARK: Your honor, I just want to make my objection. I agree with counsel that on page 163 the question was: In doing that, was there any concern by reaching around the part with forceps—

THE COURT: Slow down.

MS. CLARK: I'm sorry.

I am rereading from the deposition page 163, lines 9 through 14. And I think the testimony of converting the breech [676] at term versus converting to a breech position during an abortion, I think that goes beyond the scope of his deposition testimony.

THE COURT: Well, counsel, I will allow it at this time. You withdrew your objection previously. It seemed the appropriate thing to do is given the excerpt, perhaps we will move on to some another subject, I am not going to strike his testimony.

MS. KRASNOFF: A few more questions about turning the fetus, then I will be moving right along.

BY MS. KRASNOFF:

Q. Does turning the fetus increase the risk of rupture or trauma to the uterus?

A. Not at all. That's a part of D&E procedures. So all of the data that has ever been published includes that information.

And the act itself potentially could cause uterine rupture, but any procedure, any part of the procedure, just like labor induction, just like anything else, so it's more of a relative term. Could it increase at more than something else? No. It's just that the act itself can cause rupture of the uterus just like any other part of the D&E could.

Q. Just to be clear, by "act" you mean little "a" act of turning the fetus, you're not talking about the act as we've talked about in this case?

[677]

A. I'm sorry, the action.

Q. I just wanted to be clear.

My final question on this topic, is that the congressional findings state that a leading obstetrics textbook says there are few, if any, indications for turning the fetus in utero other than for delivering of the second twin. Are you familiar with that?

A. Yes, I am.

Q. Is that relevant here?

A. No. Again, that—

MS. CLARK: Objection on the basis of who's to say what is relevant or not relevant. I think that calls for a legal conclusion.

THE COURT: Sustained. Rephrase.

BY MS. KRASNOFF:

Q. Do you think that there—that that statement that there are indications in a D&E for turning the fetus in utero?

A. I don't agree with what was stated in the congressional findings that—I am confused.

I don't agree with the congressional findings. Is that sufficient?

Q. The congressional findings say there are few, if any, indications. But you've testified that you do turn it. So, I am asking if you believe there are indications—

A. Doing a D&E is a indication for turning it.

[678]

Q. And is that—are you familiar with that textbook?

A. Yes, I am.

Q. Is that speaking about delivery at term?

A. Yes, it is.

Q. So, moving along, once you've located and grasped the lower extremities and turn the fetus if you need to, what do you do next?

A. Pull with the instrument that I am using to remove the fetus with the attempt to remove the fetus in as few passes as possible. So until I meet resistance from the lower uterine segment, I will continue to pull.

Q. Why—

A. And once I meet resistance, I will then, while holding on to the fetus—minimal rotation, but just kind of try and ease those parts through the cervix to allow whatever's meeting resistance to try and slowly get through the cervix.

The fetus will either continue to come or will begin to break apart. It will break apart wherever or whatever it is. It may be in the middle of the leg, it may be at the abdomen, it may be at the chest, just depending on the dilation and the size of the fetus, et cetera, just on that individual case.

Q. Does it ever happen that you are able to extract the fetus intact or relatively intact up beyond the navel?

A. Yes. The level of the umbilicus, yes.

[679]

Q. Can you explain what that is?

A. There actually is no navel in a fetus. You and I have a navel because our umbilical cord was gone. The fetus has an umbilicus, but no navel because it still has the umbilical cord attached.

Q. At that point when the fetus has been removed, we are going to use "past the navel" because the act uses that.

A. Correct.

Q. You understand—

A. I understand the intent, correct.

Q. You understand it to be the umbilicus?

A. Yes.

Q. Would the fetus still have a heart beat?

A. Yes.

Q. Then what would you do next?

A. I would reach into the lower uterine segment and grasp whatever part is there and then continue to remove the fetus.

If, once—usually, if the fetus has been dismembered, the last part is the calvarium, the head. At that point, I will grasp the head and crush it like other parts of the fetus and remove that.

I will then, if the placenta hasn't been removed, reach up and remove the placenta. I'll then, using the suction cannula, suction the lining of the uterus to ensure that the lining that was there as part of the pregnancy has been removed [680] and any parts of the placenta that still may be present are removed.

I will then take a really a blunt curette, dull curette to feel the lining of the uterus, again, still under ultrasound guidance to ensure that it feels like everything has been removed to me, and then look and make sure that the bleeding is at a level that I would expect it to be, remove the tenaculum from the cervix, make sure there's no cervical tears or lacerations. If there is a speculum, I would remove it at that point and then the procedure is completed.

Q. Does it ever happen that in grasping the fetus you're able to remove the fetus intact or relatively intact all the way up to the calvarium?

A. Yes, on occasion.

Q. If that happens, would you do anything differently to complete the procedure?

A. If the fetus is intact up to the calvarium, there's two things I could do.

One would be to continue to pull, and usually it comes apart at the level of the neck, or I can insert,

what I would I have done is insert scissors through that part of the head under direct visualization, inserted the 11-millimeter cannula that I used before and drain the brain tissue and then the head comes through the opening.

I have done that on a few occasions. Most commonly [681] it's the first.

Q. The first meaning?

A. Just that it separates, the body separates from the head.

Q. And back to the example where it is removed intact or relatively intact up to the navel, how frequently, in your practice, does that happen?

A. At least once a month.

Q. Does it ever happen that you've disarticulated some part of the fetus, but then on another pass with the instruments you are able to remove the fetus passed the umbilicus?

A. Yes. Sometimes I've made an initial grasping, have a foot or portion of the lower extremity come off, and then with the second grasp, it would still come out past the level of the umbilicus. So it still would be mostly intact.

Q. Could it still have a heartbeat at that time?

A. Yes.

Q. And what would you do next if that had happened?

A. I'd still continue in the same methodology because my objective is to remove the pregnancy from the uterus.

Q. And when you begin the procedure, can you anticipate how much of the fetus you are going to be able to extract without disarticulation?

A. Not at all. It is going to vary from woman to woman based on her parity and how the cervix responded to the dilators. My main objective is the minimal amount.

[682]

Q. Would you ever take any steps to make sure that it's not removed intact?

A. Can you—intact up to the level of the umbilicus you mean?

Q. Yes.

A. No.

Q. Do you think there is anything safe about removing the fetus intact up to the umbilicus or to the calvarium?

A. The fewer passes, I feel the safer it is. Yes, I feel it's safe.

Q. I actually asked if it was unsafe.

A. I am sorry, I thought you said safe. Do I think it is unsafe? No.

Q. You mentioned that sometimes you use scissors to instrument in the base of the skull.

Is there anything that is unsafe about the insertion of scissors into the base of the calvarium?

A. When I do it for my patients, no, it is under direct visualization.

Q. Have you ever had an injury or a complication from an abortion where the fetus was removed intact up to the calvarium?

A. No.

Q. And you said—we talked about the procedure is complete. How long after you completed the procedure before the woman can [683] go home?

A. On average it's about two hours.

Q. I want to put up on the easel—

MS. KRASNOFF: If I may I approach, Your Honor?

THE COURT: Yes.

BY MS. KRASNOFF:

Q. —copy of the operative portion of the Act. If you would read that, Dr. Creinin, not out loud, to yourself is fine.

We talked at some length about the D&E abortions that you performed. I would like you to explain to the Court why it is that you think some of the D&E's that you performed would violate this definition of partial-birth abortion?

A. Well, primarily it's in the case of a breech presentation, that any part of the fetal trunk past the navel is outside of the body of the mother. As I was alluding to earlier with the other diagram, it is very common for the cervix to be down far in the vagina so that as the fetus is being removed through the cervix, the fetus would be, have the fetal trunk past the navel outside of the body of the mother relatively commonly.

So that right there would violate the Act because the purpose of my act is to kill the partially-delivered living

fetus because that's the objective of the abortion. And anything I would do once it's past the level of the navel, would be an overt act because I would be doing something [684] because the goal of my procedure is to perform an abortion.

Q. Would those be lethal acts to the fetus?

A. It would be lethal to the fetus.

Q. And would this definition cover the situation you discussed where you actually already disarticulated part of the fetus but then are able to remove past the navel?

A. Well, it doesn't state that it has to be completely intact, so that I think of a foot is removed and everything else is intact, I would take it to meaning okay. Otherwise then we—yes. So I would take it as that way.

Q. What is a spontaneous miscarriage?

A. A spontaneous miscarriage is when a woman will begin to pass their pregnancy tissue without any action by an outside person. So without treatment of some kind to cause it to pass.

Q. Do you treat patients that present in the midst of a spontaneous miscarriage or aa pre-term labor between 16 and 24 weeks?

A. Yes.

Q. Do you think that you could ever violate the Act based on what you do in that session?

A. Patients would be referred to me in that situation sometimes acutely for a D&E if the—if their obstetrician or fetal medicine consult has talked to them about what their options are. That's when I see those

patients. And because those patients commonly have advanced dilation then, yes, I [685] would violate the Act.

Q. And is it correct that when you see and treat those patients, you are completing the removal of the pregnancy by D&E?

A. Correct.

Q. Before we talked about this definition, you said that you don't routinely take extra steps to ensure that you have adequate dilation in order to be able to remove the fetus intact up to the calvarium.

Are there any circumstances in which you would take extra steps to make sure that you could do that?

A. I was presented with a patient where I wanted to avoid dismemberment as much as possible and a normal part of the procedure if the—when the fetus does pull apart with the D&E is that there are boney fragments. That's just part of it.

And the goal, one of the goals of putting of the instrument is not only to grasp the fetal parts, but to be around the fetal parts to protect the lower uterine segment and the cervix as you are pulling those parts through the canal, so it is the safest as possible for the woman.

Those boney fragments though can tear the lower uterine segment of the cervix slightly not through the cervix or through the lower uterine segment, but tear as they are dragging through. That's partly why we include vasopressin, that medicine that constrict the blood vessels in the cervical [686] anesthetic.

For a woman who is anticoagulated, which means her blood was thinned so that she wouldn't clot, and she had to stay on that anticoagulation—living in Pittsburgh we see a lot of women with liver failure, the liver makes the products that are necessary for the blood to clot. So that if she was anticoagulated for that reason, then I would not want boney fragments to be there, and I would want to remove the fetus as intact as possible.

* * * * *

[689]

BY MS. KRASNOFF:

Q. Actually, based on your experience, you mentioned the liver transplant as well. Is there another case, an actual patient that comes to mind there?

A. There was—I have had a patient who had fetal demise where the situation arose, and in that situation, I would have chosen to do an intact removal if we got to that point, but she passed away.

Q. And can you explain why in that case intact removal would have been preferable?

A. Because her liver had completely failed, and she had no way of clotting.

Q. Would it have been safe to do an induction in that case?

A. No, that would have killed her without a doubt in trying to get her through the induction.

You have—inductions is a very prolonged process, and there is going to be bleeding throughout the induction. So as the fetus begins to pass through the birth canal or the placenta begins to separate, here is a

woman who can't clot at all. I would want to do a procedure on her under very controlled circumstance than to make the procedure go quickly. You have a period of bleeding, be a short time, to have support people around. There is a benefit of being in an operating room where it's like an intensive care unit, in a sense. You have the ability to handle things acutely. [690] So a procedure in that situation would be preferable. And these are situations also where the maternal fetal medicine specialists in our department are part of the consulting team, and the majority of the patients like this that have severe, actually almost all of the patients with severe medical conditions are referred to me by the maternal fetal medicine specialists in our department.

Q. We are going to switch topics a little bit.

I know you were looking at the clock, your honor. Do you want to go to four?

THE COURT: I am assuming you will be finished by four with the direct?

MS. KRASNOFF: With the direct? Yes, you're incorrect.

THE COURT: We will go to four.

MS. KRASNOFF: Close though.

BY MS. KRASNOFF:

Q. We are going to switch and talk about cervical incompetence. What is cervical incompetence?

A. Cervical incompetence is a weakening of the structure of the cervix that would not allow it to stay closed with pressure from a growing pregnancy.

So, the cervix is actually about 80 percent connective tissue and 20 percent muscle, whereas the uterus is [691] all muscle, or virtually all muscle. So that connective tissue, also called ground substance, and it's very strong tissue. So, the inability of that strong tissue to just maintain its structure when there is a lot of pressure from a growing pregnancy, cervical incompetence, and it results in painless dilation of the cervix.

Q. Are you aware, Dr. Creinin, that the findings of the Partial-Birth Abortion Ban Act state that the amount of dilation needed in order to be able to remove a fetus intact up to the calvarium increases the risk of cervical incompetence?

A. Yes, I am.

Q. Do you agree with that finding?

A. No, I don't.

Q. Can you explain why not?

A. Well, first, there is a physiologic basis. Labor is a process where the cervix dilates to 10 centimeters, if you take a woman at term. It's usually 10 centimeters over a relatively short period of time.

Most women go through labor would hope it would be a very short period of time, but in a D&E procedure, we are talking about slow dilation to two to two and a half centimeters over a period of 24 hours. So, it doesn't even make physiologic sense that it would cause more damage to a cervix to have a slower dilation in a longer period of time or slow dilation to a lesser amount compared to a greater dilation [692] in a shorter period of time. So, there is no physiologic basis for it.

Then the literature that is available, when you look at the literature, there are a couple of studies that are—that report on a few pregnancies, relatively few, 60 to a hundred or so, of women who had procedures and then had subsequent pregnancies. And the rates, there was no increased rate of pre-term birth or pre-term delivery or cervical incompetence in those women.

Now, those studies aren't large enough to make conclusions, but if you take those studies that are available along with the common sense physiology of what's going on, I think there is no way you could determine that there would be cervical incompetence. There is definitely no studies to say it does, and it doesn't make any sense to say that it would happen. And you would—because the common sense part of it is that it wouldn't happen, you would need really large studies to prove that it does.

MS. KRASNOFF: May I approach, your honor?

THE COURT: Yes.

BY MS. KRASNOFF:

Q. Exhibit 17, the Kalish article. Dr. Creinin, I handed you what has been marked as Exhibit 17, which is an article by Doctors Kalish, Chasen and several others, which is entitled "Impact of Mid-Trimester [693] Dilation and Evacuation on Subsequent Pregnancy Outcome." This article was published in the American Journal of Obstetrics and Gynecology, volume 187 in October of 2002.

Are you familiar with that article, Dr. Creinin?

A. Yes, I am.

Q. Is that one of the studies you talked about that use relatively small numbers of women?

A. Yes, it is.

Q. Can you tell the court, please, about that study?

A. In this study it was a retrospective review, which means they looked back on charts of 600 women who had D&E procedures, and 96 of these women had subsequent pregnancies. So they looked at those 96 pregnancies, and—to see what the outcomes were, and specifically related as cervical incompetence.

There were five women—I am sorry, there were 10 deliveries that were before 37 weeks, five of which were obstetric or maternal indications for them. There were five women who had prophylactic cercloges, which are stitches in the cervix to keep them closed. Those five—four of those women had a history of cervical incompetence that preceded the D&E that they had previously, and one other person had DES exposure, and that's why her doctors chose to put in the cerclage. That's also an increase risk factor for cervical incompetence.

So none of those patients had evidence of cervical [694] incompetence. And there were no patients who received any emergency cerclages meaning that experienced cervical incompetence, so what they found in these 96 women is that there was no evidence of cervical incompetence.

As I said, that is a small study, but at least it gives you some idea that it fits in the theoretical understanding of what you would expect physiologically.

Q. Just to be fair, what were the gestational ages of the women involved in this study?

A. Fourteen to 24 weeks.

Q. What kind of abortion procedures had they had?

A. Dilation and evacuation.

Q. Is it your understanding that they received osmotic dilation prior to the procedure?

A. For the dilation and evacuation?

Q. Yes.

A. Yes, it is.

* * * * *

[700]

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Q. Yesterday you gave some testimony. I just wanted to clarify one thing about that.

You stated that you believe there may be liver patients for whom an intact removal or an attempt to remove the fetus intact may be preferable. Is there a reason why you believe in your practice you would see those sort of patients?

A. Well, patients with liver transplants or liver problems. At the University of Pittsburgh where I practice is pretty much the liver transplant capital of the world.

It is where things pretty much were developed and started, and so they get patients who come from all over the world to get their liver transplants and other transplants.

Q. And when we broke yesterday we were talking about cervical incompetence and about—we had just finished discussing the study by Drs. Kalish and Chasen and others about D&E abortions and whether they lead to cervical incompetence.

Are you familiar with other studies that relate [701] specifically to D&E abortions and that issue?

A. There is one other study by Schneider, which is a series similar to the Kalish study, which just comments on follow-up with patients after D&E, showing that—I believe it was around 60 odd patients.

MS. KRASNOFF: If I may, approach Your Honor.

THE COURT: Yes.

MS. KRASNOFF: This is Learned Treatise Four.

BY MS. KRASNOFF:

Q. Dr. Creinin, this is an article by Dr. Schneider and several others, entitled:

"Abortion at 18 to 22 Weeks by Laminaria Dilation and Evacuation," published in volume 88 of Obstetrics and Gynecology in September, 1996.

Is this the study you were referring to?

A. Yes.

Q. Can you explain that study briefly and its conclusions?

A. This was a case series of 171 dilation and evacuation abortions. And in the findings, in the results at the time of the report there were 61 women who were pregnant following the D&E procedure, and none of those women had cervical incompetence. And the authors specifically comment on it on the last page of the article.

Q. And those women had abortions by the D&E method; is that correct?

[702]

A. Yes, it is.

Q. And what were the gestational ages of the women when they had the abortion?

A. Eighteen to 22 weeks.

Q. Now, we have talked about these two case series which demonstrate or conclude that there's no increase incidences of cervical incompetence or at least suggest that; is that correct?

A. Yes.

Q. Do you know of any date that suggests that osmotic dilation prior to a D&E does lead to cervical incompetence?

A. No.

Q. At the beginning of your testimony yesterday, you testified that you have conducted gynecologic research yourself; is that correct?

A. Yes.

Q. What is a prospective randomized trial?

A. That's a study where there are two or more groups assigned to a specific treatment or intervention, and that assignment is random, either by like similar to flipping a coin, and most commonly today we use computer-generated tables to provide the randomization. And the treatment or the intervention is one in which the study participant and the people performing the study have no choice or say on what treatment or intervention they [703] get.

And then, the participants are followed prospectively, meaning from the time of the intervention

forward, to see what happens from the intervention or treatment.

Q. And have you yourself ever designed and conducted prospective randomized trials?

A. Yes.

Q. How many have you been the principal investigator for?

A. Eight for which I have been the person who designed, carried out, not just being a principal investigator at my center for a study that is going on in a lot of other centers, but actually eight that I have been in charge of completely.

Q. In addition to the eight that you have been in charge of, have you been involved in others?

A. Yes.

Q. Do you know approximately how many?

A. More than 20.

Q. And have you ever designed and conducted, where you were the principal investigator, a prospective randomized trial specifically related to abortion methods?

A. Yes.

Q. And can you describe that study, please?

A. That was a study looking at early abortion methods, medical abortion versus surgical abortion. And this was a study in [704] women up to seven weeks of pregnancy, so it was very early. But the study was looking at randomizing women to one of the two treatments. And the criteria for enrollment in the study was

that women had to have no preference for which method they wanted.

They, the women, went through counseling first about the different options. And then, if they truly felt they had no preference, and they met the other entry criteria they could be enrolled in the study.

Q. And how many women were you trying to enroll in the study?

A. The sample size estimates—sample size estimates for the outcomes I was looking at were about a hundred women total.

Q. What was your experience in trying to do that?

A. After two years we stopped the study early because we could only enroll 50 women after two years. We interviewed or had not interviewed, but had approximately a thousand women contact us about the study. And after reviewing the options with them and the different options for abortion, only 50 after two years felt that they truly had no preference.

Q. And you spoke to all or someone spoke with all thousand of those women?

A. Correct.

Q. Based on your experience with this study, do you have an opinion about whether it would be feasible to conduct a prospective randomized trial about abortion methods after 16 [705] weeks of gestation?

A. Yes, I do.

Q. And what is that opinion?

A. If I go back to the study a little bit, even for those 50 women, once they enrolled in the study, I then did further very sophisticated testing to see if they

truly had a preference. And actually 35 of the 50 really did have a preference once you could figure it out.

So there were truly only 15 women who had no real preference as to which method they preferred out of a thousand over two years. And this is in women up to seven weeks. And there is a much larger pool of women available in the U.S. when you look at the number of abortions done in the U.S. and at what gestational ages.

So when you start to look, then, at later gestational ages, the ones we are talking about after 16 weeks, there is relatively significantly fewer women who are having abortions at that time.

So to have a prospective randomized trial would be unfeasible, unreasonable and impossible to do.

Q. And if you were trying to prove safety, specifically, of various methods of abortion after 16 weeks, is there a reason that that would be difficult, as well?

A. All the labor induction, D&E, they are all very safe methods. And we have heard there is a lot that goes into a [706] women's decision as to which method she prefers. And in an individual circumstance, both personally for her, as well as medically. And when you start to look at outcomes, when the outcomes you are looking at are very rare or they don't occur very frequently, if you are looking at serious morbidities—with any of these methods you are looking at things that are 1 to 2 percent at the greatest.

So for methods that are very safe, very effective, in general to try and prove a difference or prove that one is better than another for all comers, for all people would be impossible. The sample sizes would be huge.

I have done some calculations, can I—

Q. Sure.

A. I am happy to share this.

THE COURT: Has this been made—

MR. SIMPSON: This has not.

THE WITNESS: I did this on my computer a couple days ago, and I am happy to share it. But it's just that if you had an outcome that was 1 percent for one group and one-half of one percent for another group that you were trying to say there is a difference those outcomes, you would need over 5,000 women per group to prove that was statistically significantly different.

So, if you were at 2 percent versus 1 percent, you are still over 2500 women per group. And then, to get people [707] who could do research and to get women who then were interested and willing to be randomized, it is just a completely unfeasible study.

There is another study we just finished that was funded by the NIH, where it was looking at miscarriage and the treatment of early miscarriage. And women were randomized to medical or surgical treatment. And there were four very large, well-respected centers that were awarded the contract by the NIH to do the study with the goal that we would enroll 800 women over about a year-and-a-half between the four centers.

And in over two years the four centers could only get a little over 600 women. And we recalculated our sample size needs and felt that was enough. But that was in early miscarriage.

So to get women to say they are willing to be randomized between surgical and medical method

because they have preferences and there are differences for them as individuals, is, again, unfeasible at the gestational ages we are talking about for D&E versus labor induction.

BY MS. KRASNOFF:

Q. And other than your own experiences, do you rely on any other studies in reaching the conclusion that a study of procedures after 16 weeks would be extremely difficult?

A. There was a study just published by David Grimes from North Carolina that looked at the feasibility of this issue and—

[708]

Q. Would it help if I showed it to you?

A. Yes.

MS. KRASNOFF: If I may approach, I would also like to share his notes with counsel.

THE COURT: If you would. And what is it you are referring to?

MS. KRASNOFF: This is Learned Treatise 11.

BY MS. KRASNOFF:

Q. Dr. Creinin, that is a study by Dr. Grimes at the University of North Carolina and others entitled:

> "Mifepristone and Misoprostol Versus Dilation and Evacuation for Midtrimester Abortion: A Pilot Randomised, Controlled Trial."

This was published in the British Journal of Obstetrics and Gynecology just this February, 2004, in volume 111.

Is this the article you are referring to?

A. Yes.

Q. What was Dr. Grimes comparing?

A. The primary objective of the study was to assess the feasibility of randomizing U.S. women to these two methods of abortion. So labor induction process versus dilation and evacuation.

Q. Okay.

A. And the goal was in assessing the feasibility to —they [709] calculated the sample size of 60 women that they would need to compare the two from a feasibility standpoint, and they also established that if they could not enroll at least 20 women in twelve months, or 40 women in 24 months, they would consider it unfeasible and stop the study.

Q. What was their experience?

A. In twelve months, they could only enroll 18 women, because the majority had a preference for what they wanted to have as far as their method of abortion.

Q. What was the gestational age range that Dr. Grimes was looking at?

A. These were women, I believe, up to 20 weeks, but I need to—14 to 19 weeks. So between 14 and 20 weeks.

Q. And why does Dr. Grimes' experience support your view about the feasibility of randomized trials after 16 weeks?

A. If you were going to do studies of this nature you would need well-respected researchers and well-respected institutions that know how to perform research appropriately. And the institution where Dr. Grimes is

and Dr. Grimes himself is an incredibly well-respected mentor, researcher, teacher.

And I can think of nobody who would be a greater example of how to construct such a study. And if they couldn't find it feasible there, I wouldn't—and "feasible" meaning 20 people in a year. And they couldn't even get that.

So I can't see this as being feasible anywhere.

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[712]

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Q. Are there medical situations where you think a surgical abortion would be preferable for a patient to an induction?

A. Yes.

Q. Can you give some examples of those?

A. If a woman has had prior surgery on her uterus, then depending on what kind of surgery and where the surgery was, it would be definitely preferable not to have her labor, if at all possible.

Can I go up to the diagram?

THE COURT: Yes.

THE WITNESS: In the—when the uterus is contracting, whether it be at term or if we give medicines to make the uterus contract to cause labor, the strongest part of the uterus is the part up at the top. And the part that is lower doesn't contract as strongly. And it makes sense. The uterus wants to contract from the top down to expel the fetus, as part of going through labor or induction abortion.

[713]

And so this muscle up here (indicating) contracts much more strongly. If an incision has been made in the upper part of the uterus, like with a myomectomy with fibroids have been removed in the past, or if a woman had a cesarean section with a scar included the upper part of the uterus, we recommend—in fact, we almost insist with women that if they are looking at having a delivery that they cannot have a vaginal delivery.

And we will go to large extents in general obstetrics practice to prevent them from going into labor by checking fetal lung maturity early, beginning around 36 weeks so that they don't ever go into labor.

If the fetus lungs are mature, then we do their c-section so they never have to have labor if they have had an incision up here (indicating).

And the same thing applies for labor induction abortion. Where a woman has had surgery in this part of the uterus, I would not want to give her medicines that would make her contract so strongly that it puts her at those same risks.

If a women insists that she is willing to take that risk, then we would still discuss it further. I have never met a patient who has said:

> "I insist on taking that risk as opposed to having a D&E."

But those would situations—that would be one [714] situation where there is a true, strong relative contraindication to labor induction, and a D&E procedure would be the—medically, the wiser choice, and even common sensically, the wiser choice.

BY MS. KRASNOFF:

Q. Does a woman every have any underlying medical conditions that would make induction riskier?

A. There are a lot of women who have significant medical problems, and that's one of the reasons that they are having a procedure at this point.

And it is not just that they were—the medical problems were just discovered, because there are a lot of women who have medical problems and have worked really hard to plan a pregnancy and try and get a pregnancy to a point where they could continue it.

But as the pregnancy progresses, just things are worsening in their medical situation, and they realize it is just not in their best medical interest in consultation with their doctor.

So very often, these are very desired pregnancies. In and those situations, if there's severe heart disease or respiratory disease, there are a lot of things about labor induction which, from fluid shifting, from the medicines that you need to give in the very prolonged time course of an average labor induction that a very short, controlled procedure [715] would be safer for the woman, keeping—I said this yesterday. An operating room is like an intensive care unit in that sense.

I would much rather have a procedure performed, medically, in my opinion, perform a procedure under very controlled circumstance, given all of her medical issues, than to have a prolonged process where I can't even guarantee when and if it will be successful.

Q. And what are the complications that go with induction abortion?

A. Bleeding, bleeding significantly enough to require transfusion. The bleeding can occur from abruption, as we talked about yesterday, infection, cervical injury, uterine injury. We are making the uterus contract at a time when it doesn't want to contract.

So we have to give very high doses of medicines, much higher than you would give at term, just because we are trying to override the fact that the uterus doesn't want to do this process. So you have to make the uterus contract so strongly that it can just break apart, to put it in simplistic terms.

And failure of the induction method, inability to successfully complete an induction. And then, retained tissue requiring a surgical intervention, anyway, anywhere from 20 to 70 percent, depending on the study and the methodology used.

Q. When you say "retained tissue," can that be a retained [716] placenta?

A. Primarily it is a retained placenta.

Q. And what percentage again?

A. It can vary from 20 to 70 percent, depending on the methodology. You can look at studies that say:

"In our situation, this is what we found."

But especially with the more modern techniques, the studies are incredibly small. So you have to, just like I mentioned with the studies earlier with incompetence that they are small, but it is the best we have, and we have to look at them for what they are worth.

Same thing with the modern abortion or modern labor induction abortion techniques. The study sizes are incredibly small. So when you look at the per-

centages of women who had retained placenta and needed intervention, you have to look at that within the realm of: they are small studies, so it can have a wider range.

Q. When you say "need intervention," what does that mean?

A. Usually a procedure like the D&E, just to remove the placenta, because the placenta rarely can fit through a suction cannula. At that point, you really have to—if it is at 20 weeks, you would have to grasp with a grasping instrument the same way to remove the placenta. So it is too large to fit through a suction cannula.

Q. What is DIC?

[717]

A. DIC is disseminated intravascular coagulopathy, which means it's words. It's not just letters. But it's a situation where most commonly because of prolonged bleeding or heavy bleeding that is going on for a long period of time, that the body is not only losing blood cells, but it's also losing the clotting factors that are in the blood. And the liver can only make these clotting factors so quickly.

So when there is a lot of bleeding over a shorter, prolonged period of time, the body no longer is able to clot. And there is a normal balance that we all have between clotting and not clotting. It goes on all the time in our body. And DIC is the situation where you've lost the balance. You've lost the race.

Q. Do you have an opinion on whether a surgical abortion after, say, 16 weeks versus a labor induction carries a greater risk of DIC?

A. I think over all both of them have an incredibly low risk. If I had to say which one would be greater, in my opinion it would be that the labor induction would have the greater risk just because it is a more prolonged procedure, bleeding over a longer period of time.

DIC is, again, just incredibly rare in a very short, controlled surgical procedure.

Q. In your opinion, Dr. Creinin, have there been improvements in the medications used to induce induction abortions in the [718] past 20 years?

A. Not significant improvements at all.

Q. Have the complications that we went over, have those changed in the past 20 years?

A. Not significantly, based on the studies that are available.

Q. And is your testimony about induction based in part on the research you did in order to prepare your book chapter?

A. Primarily, along with discussions with my co-author. One of the reasons that I decided to co-author the update rather than just do it myself was that Dr. Goldberg, who is my co-author, has a lot more extensive experience with misoprostol, the methods that many individuals choose to use for induction.

And so we decided to do this together. And we both came to the conclusion that the data that's available compared to the data from decades ago, 10, 15 years ago, methods that were used before that, that there really isn't much proven difference.

Nothing that is better. It doesn't mean that it is bad method, but there is just nothing that is better.

Q. Based on that medical literature, specifically, what is your conclusion about the relative safety of surgical abortions as they are performed today and inductions as they are performed today?

A. Based on the literature, I think they're equally safe. I [719] have—I think there is a lot of trends towards more safety with D&E. But, again, that data has to be taken within the realm of how conclusive one can be by looking at the data.

I think there's some recent publications looking at mortality from the CDC, that show that there's no difference in mortality, but a significant trend towards less with D&E.

But the statistics, the sample size doesn't allow you to say there is a big difference. And I think all of the literature is pretty similar in that realm, that one is not better, necessarily, than the other. But there are significant trends towards D&E being better.

And I think that a lot of it comes down to individual circumstances. And there are definitely medical circumstances and personal circumstances where one procedure, like a D&E, would be obviously preferable. And I would want—I think to best serve my patients, I would need to provide her with the options that would be best in that individual's circumstance.

Q. Are there any particular studies that you have relied on comparing the modern methods of surgical versus induction abortions?

A. There is not a lot of studies at this gestational age range. But the only one that's—

Q. What gestational age range?

A. I'm sorry. Beyond 18 weeks, 18 to 24 weeks.

[720]

There is one study by Autry, et al, that is a comparative study, and it's probably the best thing we have to look at the issue.

MS. KRASNOFF: That is Learned Treatise Five. If I may I approach, Your Honor?

THE COURT: Yes.

BY MS. KRASNOFF:

Q. Dr. Creinin, I have handed you learned treatise five, which is an article by Dr. Autry, and others, which is entitled:

> "Comparison of Medical Induction and Dilation and Evacuation for Second-Trimester Abortion," published in volume 187 of the American Journal of Obstetrics and Gynecology, in 2002.
>
> Are you familiar with that study?

A. Yes, I am.

Q. And what methods of abortion was it comparing?

A. This study compared labor induction methods versus dilation and evacuation for abortion between 14 and 24 weeks of pregnancy. And the most commonly used medical abortion regime was a misoprostol regime. Not all of the women had that method used. But I believe it was the vast majority, 75 percent, roughly. I would have to look for clarification, but I believe it was 75 percent had misoprostol inductions.

Q. And that is the same medications that are commonly used today?

[721]

A. Yes.

Q. What conclusions do you draw from the Autry Study?

A. When they—when the authors compared D&E versus labor induction abortion with the modern techniques that are used—misoprostol, primarily, and still some others—that the overall complication rate was much lower with D&E versus labor induction.

And those were just overall complications. When you look at severe complications they didn't really talk about those as significantly.

They did—there was a lot of analysis looking at women who had blood loss of more than 500 cc's, spending more time in the hospital, those sorts of things.

But this study tells me D&E appears safer. But to talk about it with conclusiveness, you would—you have to take this within the realm it is a retrospective study. There were a lot of things that were not controlled for. So it goes along with the idea that I can say:

> "The best data I have available tells me D&E is better."

Q. And are you—

A. But I still have to take it with a grain of salt, saying:

> "But I can't say with 100 percent certainty that it is always better for every person."

Q. Are you aware of any data that demonstrates that after 18 [722] or 20 weeks induction is a better method?

A. Not at all.

Q. In your opinion, how would you decide for any particular patient whether she should have a surgical abortion or an induction?

A. Well, I don't. I am not the one who ultimately makes that decision; the patient is.

Q. Dr. Creinin, do your patients ever ask you if the fetus is able to feel pain?

A. Yes, they do.

Q. And what do you tell them?

A. It's actually relatively a common question. I tell them that the best data that we have available, if you look at all the data, says that fetuses are unable to feel pain in the way that we, as humans, feel pain, until 26 weeks.

Q. What is that data that you are referring to?

A. It's a compilation review by the Royal College of Obstetricians and Gynecologists from 1997.

MS. KRASNOFF: This is Learned Treatise Nine, Your Honor, if I may give it to the witness?

THE COURT: Yes.

MS. CLARK: Your Honor, I just want to raise an objection. I am anticipating that she is going to ask for an opinion about fetal pain, and he wasn't been qualified to opine on fetal pain.

[723]

THE COURT: Is that—

MS. CLARK: I think he can talk about what he says to his patients, but—

MS. KRASNOFF: He is only going to report what he tells to his patients. He is not, in fact, an expert on fetal pain.

THE COURT: Go ahead.

BY MS. KRASNOFF:

Q. Dr. Creinin, this is Learned Treatise Nine, which was published by the Royal College of Obstetricians and Gynecologists, and is called:

"Fetal Awareness: Report of a Working Party," from 1997. Is this the data you are referring to?

A. Yes.

Q. And what is the Royal College of Obstetricians and Gynecologists?

A. That's the group or college of obstetricians and gynecologists in the UK, that is the equivalent of we know as the American College of OB/GYN, or ACOG. American College of OB/GYN or ACOG.

Q. And do you know why this report was prepared?

A. There were actually some questions raised by health care providers, as well as by Parliament, which is like our Congress. I guess I didn't need to say that here.

But just questions raised. There wasn't any dogma [724] that said to the Royal College:

"You need to look at this."

But there were enough questions being raised, both privately amongst the health care providers, and publicly, that the Royal College felt that a learned group of individuals needed to be brought together and

form a working party to review the evidence in an unbiased fashion.

Q. And who was in that working party, what kind of specialists?

A. There were fetal and neonatal medicine specialists, anesthesiologists, biologists, neurologists and a theologian and a lawyer.

Q. What did the Royal College Working Group conclude about fetal pain and the ability of a fetus to feel pain?

A. Can I read from what they said?

Q. Sure.

A. There are two main points.

MS. CLARK: I object. This is beyond what he tells his patients.

THE WITNESS: No, this is—I am sorry.

THE COURT: Yes. And you are not a lawyer, either.

THE WITNESS: No, I am. That's why I apologized.

THE COURT: Okay. Your response? She had objected before about the use of the treatise insofar as he was going to express an opinion on fetal pain. You indicated he was only [725] going to testify as to what he tells his patients. Now he is reading from a treatise. Where are you going?

MS. KRASNOFF: I would just would like to know based on this document if this is what he relies on and what he tells his patients based on this.

THE COURT: Do you have an objection to that?

MS. CLARK: For that simple question, no.

MS. KRASNOFF: Okay.

THE COURT: All right.

THE WITNESS: This is what I tell—roughly what I tell my patients. I can just tell you what I tell my patients.

BY MS. KRASNOFF:

Q. Yes, sure. Just tell me as if I were a patient.

A. That there are multiple things that are necessary—the simple thing I tell my patients, and then I will tell you when they want to know further detail exactly what the working party found.

But the simple way I tell it to them is that pain is something that we understand as conscious beings, and that pain requires us to not only sense something, but to process it as painful.

And a good way of understanding it is if you or someone you know has had major surgery and has been put under general anesthesia, that you don't feel pain during the surgery. It is only once you wake up from the surgery that you [726] feel the pain.

So there has to be a consciousness in order to feel pain. And what the working party found is what I base that on is that you can look at the development of nerve fibers in the periphery, and you can look at the development of nerves that go up to the brain, but then—

MS. CLARK: I will object. I am not sure if this is what he actually tells his patient or if he's explaining how he forms the decision to tell his patients. I think he can testify as to what he tells his patients, but not why

he tells his patients that. That seems to be expert testimony.'

THE COURT: I disagree with that, Counsel. I think that I am going to allow him to explain to me why he tells his patients what he tells them.

THE WITNESS: So, that the nerves need to also develop that go up to the brain. And then, within the brain itself, there has to be the connections that form for the brain to process this as something painful. And a lot of—and I do have patients that ask me, because they have looked on the internet and heard about studies that have shown that fetuses feel pain.

And what a lot of those—virtually all the studies look at are things called autonomic reflexes or automatic reflexes.

And, again, the way I explain that to patients would [727] be if you were in a coma, and I tapped your knee, most people know that the knee reflexes. You hit the knee and the leg pops up.

If you were in a coma, you would still have that reflex, because the nerves go from your knee to your spinal cord, and then right back. It is an automatic reflex. It doesn't require processing in your brain to say:

> "I felt pain in my knee, therefore I am going to kick." It is an automatic reflex.

So that in no way says that you felt pain. It is an automatic response. And that is what most of the studies on fetal pain show.

So when patients ask me about what they read, that is what I tell them.

BY MS. KRASNOFF:

Q. And based on what you read, and for your practice only, do you feel you need to do anything different for abortions prior to 24 weeks, based on the issue of fetal pain?

A. I don't feel I need to. And also, when I read in the literature, the working party summarizes—concludes you don't need to, based on all of these things, also.

Q. Dr. Creinin, do you ever utilize a chemical agent to cause fetal demise prior to performing an abortion?

A. No.

Q. And why not?

[728]

A. Because I don't feel there is any benefit to my patients to doing so before the procedure. And it adds an extra step. And if there is no benefit, and I have to do something, then I just get risk without benefit.

Q. What are the risks that could arise from that injection?

A. In putting a needle into somebody's belly, first there is the physical pain issue of it. There is the—for some women—the trauma of seeing that I am doing something, because a lot of women ask:

> "Am I going to see anything during the abortion? I don't want to see anything."

So even putting the needle in would be part of what they would see.

The needle can go through blood—large blood vessels that feed the uterus, and specifically the placenta.

So you could have significant bleeding. You could cause infection because you are putting a needle in. And albeit, many of these risks are small, if there is no benefit then all I get is risk.

MS. CLARK: Your Honor, I will object on a lack of foundation. He said he doesn't do any injections that cause fetal demise. I don't understand what his basis is. He doesn't have a basis for those opinions.

THE COURT: I think that he said that he doesn't do it because of the risk. It seems to me the basis would be his [729] prior analysis of those risks in order to give advice to his clients.

MS. CLARK: I mean, it may be—I don't think—I don't think a foundation has been laid.

THE COURT: Why don't you lay an appropriate foundation?

MS. KRASNOFF: We are actually done with this topic, but that is precisely was he was testifying to. Is that—

BY MS. KRASNOFF:

Q. Dr. Creinin, is that the reason why?

A. Those are the reasons why I don't do that procedure.

Q. And are you familiar based on your practice treating patients who are pregnant with doing a similar type procedure?

A. Yes, with amniocentesis.

Q. Do you ever perform abortions for women who need an abortion for a life-threatening condition?

A. Yes.

MS. KRASNOFF: May I put up a blowup?

BY MS. KRASNOFF:

Q. If I could as you to read the second sentence which starts with this subsection to yourself.

"Based on that, the Partial-Birth Abortion Ban Act, would allow you to perform a banned abortion when it is necessary to save the life of a mother whose life is endangered by a physical disorder, [730] physical illness or physical injury."

Would you feel comfortable performing the life saving abortions you perform now under this exception?

A. Not totally comfortable. I would have to hope that other people agreed with me or with the patient's primary health care providers, that they agreed. If it leaves it open to speculation by other people, there is no definition of "life endangerment," like: how much does it need to be? Does it need to be that there is a 50 percent chance she'll die? Does it need to be a 20 percent she'll die. I don't—it is not clear to me.

Q. And Dr. Creinin, one of the findings of the Partial-Birth Abortion Ban Act is that that act will advance the interest of the medical profession. Do you believe that this Act that is at issue in this case advances the interest of the medical profession?

A. Not at all.

Q. Why not?

A. Part of being a medical professional is to provide care as best as possible for in that individual person, and every circumstance is different. And I can't ever lay a general rule that everything will always be the same for everybody. There is things I see every month or two that I have never seen before in the last 10 to 11 years. So there is no way I could lay a general rule.

[731]

So preventing me from providing service—and the law, as it is written, is not about a specific procedure. It is about techniques that are used during surgical—during surgical procedures, so that this would prevent me from providing methods of abortion that are well-proven to be safe for women.

So I don't think this advances medicine. I think it hinders—severely hinders the practice of medicine.

* * * * *

[740] pieces?

[CROSS-EXAMINATION BY MS. CLARK]

A. Correct.

Q. You don't tell your patients that the fetus will come out intact?

A. No.

Q. And in a D&E procedure the fetus is removed in pieces to be as safe as possible for her?

A. I tell her that's the reason we are doing the procedure that way.

Q. You wouldn't tell your patient anything that is incorrect, would you?

A. To the best of my knowledge, I would not.

Q. And you remove the fetus in pieces because you want to minimize the amount that the cervix is open, correct?

A. Correct.

Q. And you minimize the amount of dilation in a D&E procedure in order to perform an abortion that is as safe as possible?

A. Correct.

Q. And when you are doing a D&E that involves dismemberment of the fetal parts, you perform a gentle twisting motion when you meet resistance, correct?

A. Correct.

Q. And the purpose of the twisting is to avoid tearing the cervix, right?

A. Not entirely.

* * * * *

[744] woman?

A. I don't understand what you mean by "significant."

Q. If you increase the number of dilators than what you use, that increase in dilators would increase the level of pain that the woman would experience; is that correct?

A. It could, but not always.

Q. Is it increase in the level of pain one of the reasons why you don't increase the number of dilators?

A. For my patients in my situation, yes.

Q. And more dilators also could cause injury to the woman's cervix; isn't that correct?

A. More of anything can cause injury to anything. That is a given.

Q. So many your answer would be "yes" to that question?

A. It's not—yes, that's because it is an obvious question.

Q. You don't set out to dilate the cervix more in order to increase the likelihood that you will be able to remove the fetus intact; is that correct?

A. In order to remove the fetus completely intact, that's correct.

Q. And it is your opinion that in your hands it is safer for you to perform a D&E abortion involving dismemberment of the fetus than it is to perform an intact D&E?

A. Correct.

Q. Now, you have encountered situations in which you are * * *.

* * * * *

[748]

Q. Because if the fetus were close to 24 weeks, and you were performing a transvaginal surgical abortion you would be concerned about delivering the fetus entirely intact because that might result in a live baby that may survive, correct?

A. You said I was performing an abortion, so since the objective of the abortion is to not have a live fetus, then that would be correct.

Q. In your opinion, if you were performing a surgical abortion at 23 or 24 weeks and the cervix was so

dilated that the head could pass without compression, you would do whatever you needed to do in order to make sure that the live baby was not delivered, wouldn't you?

A. Whatever I needed, meaning whatever surgical procedures I needed to do as part of the procedure? Yes. Then, the answer would be: yes.

Q. And one step you would take to avoid delivery of a live baby would to be to deliver or hold the fetus' head on the internal side of the cervical os in order to collapse the skull; is that right?

A. Yes, because the objective of my procedure is to perform an abortion.

Q. And that would ensure that you did not deliver a live baby?

A. Correct.

Q. You would agree that a D&E in the second-trimester pregnancy is an extremely safe procedure, right?

[749]

A. Yes.

Q. And you would agree that the forceps used in a D&E do not pose a risk of damaging the cervix?

A. No, I don't agree with that.

MS. CLARK: Your Honor, may I approach?

BY MS. CLARK:

Q. Dr. Creinin, I took your deposition about a month ago; isn't that correct?

A. Month-and-a-half, yes.

Q. And you told the truth in that deposition, right?

A. Yes.

Q. And you had the opportunity to review your deposition transcript, right?

A. Yes.

Q. And you signed that deposition transcript after making a few changes; isn't that right?

A. Yes.

Q. I would like to direct your attention to page 147, line 22.

MS. KRASNOFF: I am sorry. What line again?

MS. CLARK: Line 22.

BY MS. CLARK:

Q. If you would read to yourself through page 148, line 4.

A. Yes.

Q. Would you now agree the forceps used in a D&E does not pose a risk of damaging the cervix?

* * * * *

[751]

A. From most. For virtually all women, yes.

Q. Doctor, for the surgical abortions that you perform 18 weeks and one day, and later, most of your patients do not return to you for follow-up care, correct?

A. Correct.

Q. So, if you performed an abortion, and if the woman had a subsequent pregnancy, say, two years

later, and experienced a pre-term birth during her subsequent pregnancy, you are unlikely to know about that?

A. Correct.

Q. Doctor, in your direct testimony you testified about whether cervical incompetence is a complication that a woman make suffer as a result of having a surgical abortion; is that right?

A. I am sorry. Can you repeat the question?

Q. I am trying to go slow.

In your direct testimony, you testified about whether cervical incompetence is a complication that a woman may suffer as a result of having a surgical abortion, right?

A. Correct.

Q. And is it correct that cervical incompetence does not manifest itself until a subsequent pregnancy?

A. Correct.

Q. Doctor, one of the articles you relied upon in forming your opinion about the possibility of a risk of cervical * * *.

* * * * *

[784]

* * * * *

[REDIRECT BY MS. KRASNOFF]

Q. You were discussing multiple passes versus intact. Is one category of procedure where you remove the fetus completely intact without having to take or to compress the head?

A. Correct.

Q. A different category which you were calling intact D&E, is where you removed the fetus up to the calvarium, and you use a scissors and suction to remove the fetus; is that correct?

[785]

A. Scissors to puncture the skull to drain, right. Correct.

Q. The third category which I think you called a D&E, you may remove the fetus up to the point of the aftercoming head, but then disarticulate further. That would be a D&E?

A. Correct, and any of the—

THE COURT: I didn't under the distinction between the second and third.

MS. KRASNOFF: He's—

THE COURT: Second and third category.

MS. KRASNOFF: Oh, the second was specifically using a scissors to pierce the base of the skull and the suction instrument to remove the intracranial contents.

THE COURT: Okay. The third was—

MS. KRASNOFF: The cranium lodges and uses disarticulation to remove the fetal trunk, and then remove the skull, thereafter.

THE COURT: All right. And, Doctor, the category in which you described three prior experiences, was that in the first category or the second category?

THE WITNESS: Second.

THE COURT: The second category?

THE WITNESS: The second was intact. That is what is medically called an intact D&E procedure.

THE COURT: Okay. And you have not had any experience with the first category?

[786]

THE WITNESS: No.

BY MS. KRASNOFF:

Q. You took out one, two and three.

A. The first category being that the fetus comes out completely intact?

THE COURT: Right.

THE WITNESS: There have been situations, most commonly if there is a multiple pregnancy and the first one is removed by D&E, and then the second one because the cervix is very pliable at that point will come out completely intact.

THE COURT: Have you had that experience?

THE WITNESS: Yes. In all of those situations, though, regardless of whether the fetus comes out completely intact, intact up to the head, and I do a procedure on the base of the skull, or I dis—or it comes out completely at the level of the head, and I disarticulate it, all of those have at times gone intact or relatively intact to the level of the umbilicus or greater and would violate the law.

THE COURT: Okay.

BY MS. KRASNOFF:

Q. And do you know at the outset whether it is going to be one of those three?

A. No.

Q. I think you testified about this on direct a little bit.

Why do you in the abortions you do not seek to get more [787] dilation?

A. Because I'm trying to balance the patient's desires and needs and comfort so that I can put in—so I am trying to make it so when she goes home, she is as comfortable as possible, with balancing with me getting enough dilation to do the procedure. And that my goal is to get enough dilation to safely do the procedure, realizing sometimes it may be more.

But my primary objective is for her to go home with a low likelihood of delivering at home, because she doesn't want that. We talked about that ahead of time, and with her being comfortable.

Q. Miss Clark used the word "minimizing the dilation."

Do you consider what you are doing to be minimizing the amount of dilation?

A. I think minimizing requires comparison. I think it is more that I am trying to achieve an amount that I consider to be a minimal amount to successfully do the procedure, but I am not trying to minimize the amount.

Q. I believe you testified that—about taking acts to prevent delivery of a live fetus. Would you ever do that if in your medical judgment the fetus was viable?

A. No, I wouldn't be doing this procedure on a viable fetus.

Q. You don't perform any abortions on viable fetuses, do you?

A. No, I don't. By law in Pennsylvania I cannot.

* * * * *

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

No. C 03-4872 PJH

PLANNED PARENTHOOD FEDERATION OF AMERICA, INC. AND PLANNED PARENTHOOD GOLDEN GATE, PLAINTIFFS

v.

JOHN ASHCROFT, ATTORNEY GENERAL OF THE UNITED STATES, DEFENDANT

TRANSCRIPT OF PROCEEDINGS
Tuesday, Apr. 6, 2004
Volume 5

BEFORE THE HONORABLE
PHYLLIS J. HAMILTON, JUDGE

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* * * * *

[CAROLYN WESTHOFF, M.D.—DIRECT EXAMINATION]

[791]

* * * * *

Q. Good morning, Dr. Westhoff.

A. Good morning.

Q. Are you a board certified OB/GYN?

A. Yes, I am.

Q. And where are you currently employed?

A. I am a professor at Columbia University at New York City.

Q. And what are you a professor of?

A. I am a professor of obstetrics and gynecology in the college of physicians and surgeons. And I'm also professor of epidemiology and of population and family health in the Mailman School of Public Health.

Q And are you an epidemiologist in addition to being an OB/GYN?

A. Yes, I am.

Q. And are you affiliated with any hospital?

A. I am attending physician at the New York Presbyterian Hospital.

[792]

Q. And in addition to being an attending physician at New York Presbyterian Hospital, do you have other positions?

A. I am the medical director of our family planning clinics, and I'm also the director of the special GYN services.

Q. And is that the special GYN services at a particular institutions?

A. The special GYN services is at Allen Pavilion, which is a building that is part of New York Presbyterian Hospital.

Q. And did New York Presbyterian Hospital used to be called Columbia Presbyterian Hospital?

A. Yes, about six or eight years ago we merged with New York Hospital, so there are multiple

campuses now that are all part of New York Presbyterian.

Q. And do you have a private medical practice?

A. I am part of the faculty practice in the department of OB/GYN.

Q. And what services do you offer in that private practice?

A. My private practice is a half day a week, and that is focused on providing care for abortions, miscarriages and contraceptive consultation.

Q. And what services are provided by the special GYN services program?

A. Special GYN services provides care for miscarriage and abortion up until 24 weeks, and tubal ligations.

Q. And approximately how many patients do you see annually at [793] the special GYN services?

A. There are a total of between two to 3,000 visits. There are about—they are divided among the various services we offer.

Q. In your private practice approximately how many patients do you see a year?

A. See about 500 patients.

Q. And at the special GYN services, are there other physicians besides yourself that are providing services?

A. Yes. There are about five physicians who are part of my core group, part of my academic division. And then, there are another six or eight doctors who are part of the department of OB/GYN who may work with us one day a week or one half day a week.

Q. And do you supervise all of those physicians?

A. Yes, I do.

Q. Do you yourself perform abortions?

A. Yes, I do.

Q. For how long have you been performing abortions?

A. I started performing abortions during my residency training starting in 1978.

Q. And what type of abortion procedures are offered at the special GYN services?

A. We provide surgical abortion in the first and second-trimester. We also provide medical abortion using [794] mifepristone or methotrexate in the first-trimester.

Q. Do you perform induction abortions at special GYN services?

A. The special GYN services is completely outpatient service, and we don't provide inductions on that unit.

Q. Have you ever provided inductions in your career?

A. Yes, I have.

Q. And why don't you currently provide inductions?

A. There is currently not need for me to offer induction services. In our department of OB/GYN there are many other physicians, particularly those in maternal fetal medicine, who know how to provide an induction abortion. And they occasionally do so for their patients. But they refer all patients requesting D&E to our service.

Q. And in your practice, what are--I think—did you testify to what gestational age you provide D&E's at special GYN services?

A. We provide D&E's through 28 weeks, which is the legal limit in New York state.

Q. Through twenty-eight weeks?

A. Did I misspeak? I'm sorry.

Q. Yes, doctor.

A. Through 23 weeks.

Q. Through 23 weeks. Is that 23 and six-seventh—

A. Yes.

Q. —weeks. Okay.

[795]

And what are some of the circumstances in your practice that women are having second-trimester abortions, just generally?

A. Well, we certainly see some women who have personal and social catastrophes. And we see many women who have genetic abnormalities or anatomical abnormalities of the fetus that are diagnosed in the second-trimester.

And we also see women who have medical illnesses that make continuing on to parenthood at this time more dangerous for them who decide to abort.

Q. Do you know approximately what percentage of your patients are terminating the pregnancy due to a serious fetal abnormality?

A. It is approaching half of the patients.

Q. And does Columbia University offer any training in abortion procedures?

A. Yes, we do.

Q. What type of abortion procedures are taught?

A. All of the types that I just described.

Q. And do you teach the intact variant of the D&E procedure at Columbia?

A. Yes, we do.

Q. Have you authored any publications?

A. Yes, I have.

Q. Just generally, what subject areas have you authored [796] publications in?

A. My main focus has been in the area of family planning, so contraceptive development effectiveness, contraceptive evaluation, early medical abortion. And I also am interested in ovarian tumor and have done a number of studies looking at ovarian cancer and benign ovarian cysts and tumors.

Q. And are the publications listed on your curriculum vitae?

A. Yes, they are.

Q. Do you sit on any governmental advisory committee panels at any level?

A. Yes, I do.

Q. Could you state some of them for us?

A. Yes. I just completed five years as a member of the U.S. Preventive Services Task Force.

I have served on NIH study section to evaluate grant applications. And I am also a member of or chair

of several data safety and monitoring boards for a number of NIH-sponsored clinical trials.

MS. GARTNER: Your Honor, may I approach the witness to hand her her CV?

THE COURT: Go ahead.

BY MS. GARTNER:

Q. Dr. Westhoff, I am going to hand you what is Exhibit 67.

MS. GARTNER: Your Honor, because we didn't know if Dr. Westhoff was going to be testifying in person, we [797] designated this exhibit in the way that it was. This is her curriculum vitae. And the way that it was used in her deposition testimony, and for some reason I don't fully understand, it is stapled together. It's a copy of Dr. Westhoff's expert report and her CV, and her declaration in the New York case.

So just so you understand, we are really only using it for the CV, but it was designated as three documents stapled together.

BY MS. GARTNER:

Q. Dr. Westhoff, if you turn to the third page of that document, is this your curriculum vitae?

A. Yes, it is.

Q. Is this document an accurate summary of your education and experience?

A. Yes, it is.

MS. GARTNER: Plaintiffs would move Exhibit 67 into evidence.

THE COURT: Any objection?

MS. CLARK: No objection. And, Your Honor, I would just suggest we can keep the labeling purposes and maybe take apart the report and the background, and just submit the CV.

MS. GARTNER: That's fine with us, Your Honor.

THE COURT: All right. We can deal with this later when we deal with all of the Exhibits.

[798]

We will admit it at this time.

THE CLERK: Sixty-seven into evidence.

(Plaintiffs' Exhibit 67

Was received in evidence.)

MS. GARTNER: And, Your Honor, we would move to qualify Dr. Westhoff as an expert in obstetrics and gynecology, abortion practice and epidemiology.

THE COURT: Any objection?

MS. CLARK: No objection.

THE COURT: All right. She'll be accepted as such.

BY MS. GARTNER:

Q. Dr. Westhoff, do you have an opinion regarding the safety of D&E's in which the fetus is extracted intact?

A. Yes, I do.

Q. And what is that opinion?

A. That it is an extremely safe way in which to accomplish second-trimester abortion.

Q. And what is the—in what way do you think intact extraction is a safe way to accomplish second-trimester abortion?

A. Okay. In contrast to dismemberment D&E? The benefits that I attribute to this approach, based on my experience using this approach with my patients, is that it minimizes the passage of instruments into and out of the uterus, and therefore minimizes the risk of perforation with those instruments.

[799]

It also minimizes the creation of sharp fetal fragments that may lead to laceration during extraction. And that, in addition, it may sometimes be quicker and, therefore, lead to less blood loss in my patients.

Q. And in what way does it—looking at the reduction in the risk of injuring the woman with the sharp, boney fragments, if you can explain in a little more detail how that happens?

A. Well, I need to explain that by contrasting it to a D&E that involves disarticulating the fetus. When the fetus is disarticulated, the skin and soft tissue covering the bones is disrupted, so sharp fragments of bone are exposed.

And in the process of exposing them, grasping them and removing them from the uterus there is the possibility that those boney fragments can lacerate at any level of the uterus and the cervix itself during extraction.

When the fetus is removed intact, the entire fetus remains covered with skin and soft tissue. There are no boney fragments. Therefore, there is minimal or

perhaps zero risk of creating such lacerations during the extraction.

Q. Can the boney parts perforate the uterus in addition to lacerating it?

A. Yes, they can.

Q. Have you ever observed uterine perforation or laceration or cervical laceration as a result of instrument passes in a D&E with disarticulation?

[800]

A. Yes.

Q. Have you ever observed that happening as a result of sharp fetal parts?

A. Yes, I have.

Q. Have you ever observed uterine perforation or cervical laceration in a D&E where the fetus was extracted intact?

A. Based on our experience on our own service over the previous five years or so we have not had any perforation or lacerations occur following—during or following an intact D&E.

But we have had those complications occur during and following dismemberment D&E.

Q. Is there an advantage to intact D&E in terms of not having retained tissue in the uterus after the procedure?

A. Yes, there is.

Q. What is the—what is that—can you explain that advantage in a little more detail?

A. Yes. When the fetus is removed in parts we attempt to account for all the parts on the operating

table at the completion of the case. But it is entirely possible that small fragments of soft tissue can remain inside the uterus that we can't be sure of.

And even with, for instance, the sonographic scan, we may not be able to detect those, and that can lead to subsequent infection or hemorrhage on the part of the patient.

[801]

We have, in fact, on our service had a case with a small fragment of retained skull leading to those very difficulties and requiring a second procedure subsequently to relieve those symptoms.

Q. Do you know whether that particular procedure was done with ultrasound guidance?

A. I don't recall with certainty.

Q. And you also indicated that a potential advantage of the intact extraction is the shorter period of time for the procedure; is that right?

A. Yes. That may be true.

Q. And why would a shorter procedure time be an advantage?

A. In general, patients may be bleeding throughout these procedures to some degree, and the shorter the procedure is, the less blood loss there may be.

For a patient who starts a procedure medically compromised due to some illness, patient who perhaps starts the procedure anemic from the very beginning, reducing blood loss reduces the difficulties that the patient may experience.

That is one reason why the potential for shorter operating time benefits the patient.

Q. And is there an advantage to the intact extraction in terms of how the fetal head is removed from the uterus?

A. The collapsing of the fetal skull by using an incision at the base of the skull is, in my opinion, based on my [802] experience, a safer approach, because the skull, the base of the skull is at the level of the cervical os, and I can visualize it directly when I make that incision.

So there is no blind use of instruments, and therefore, minimal or no risk from the use of the instruments.

In contrast, when I am retrieving a fetal skull that is floating free in the uterine cavity, I must pass instruments in an attempt to grasp it inside the uterus. And that is a blind use of instruments, which has more potential for perforation.

Q. And Dr. Westhoff, in your opinion, does the intact variant of D&E in any way facilitate the grieving process of women that are ending their pregnancy, that was a wanted pregnancy but they are ending it due to an anomaly or a maternal health condition?

A. Yes, it does. In a particular case in the last year, as an example, a patient who was aborting twins due to complications during the pregnancy absolutely did not want to go through labor and didn't want to go through an induction, but expressed the desire to hold these babies after the procedure.

We were able to deliver both of them intact and present them to the woman to hold with clergy and her family present. And she was very grateful for that opportunity.

And it is very similar to how on our obstetric unit we may allow a patient to hold a stillborn fetus.

[803]

Q. And we have had questions previously in this case about whether when you are doing that type of procedure where you are reducing the fetal head by puncturing it in the back, does that—does the fetal face remain intact in a way that the parent can hold it and not feel disturbed?

A. Yes. It may not be anatomically obvious here. The incision in the base of the skull leads to a collapse of the top and the back of the skull. The skull remains covered by scalp, and—but it collapses in the back.

The face is not disturbed at all, and it is just that the back of the head then appears collapsed, with a sort of wrinkled scalp covering it. And it is not as distorted as one might fear.

Q. And is it—other than that case that you described of the woman who was terminating the pregnancy with the twins, do other patients also seek to hold the fetus in your practice?

A. Yes, we do. Yes. That is the most recent patient who I remember, but we have several patients every year who express This desire, and we are able to accommodate that.

Q. Is it the case, Dr. Westhoff, that induction abortions also would typically result in an intact fetus?

A. Yes. An induction is successful would result in an intact fetus.

Q. So why then, given that a woman could obtain an intact fetus with induction method, why is the intact D&E—why does [804] that offer advantages to her?

A. In the United States as a whole, 90 to 95 percent of women choose D&E over induction. And the reasons my patients tell me that they do not wish to undergo an induction is they don't want to go through the experience of labor.

Q. Dr. Westhoff, have you offered expert testimony in other court cases before this federal law was passed relating to bans on so-called partial-birth abortion?

A. Yes, I have.

Q. And was the first time in 1997, in a case in Michigan?

A. Yes, it was.

Q. Since 1997, when you first testified in the case relating to the subject of so-called partial-birth abortion, has your medical practice with respect to the abortions that you performed and the gestational ages at which you perform them, has that changed?

A. Yes, it has. at the time I first testified in Michigan, we did not have a full-scale abortion service at what was then Columbia Presbyterian. And in the year since then, I began the service that now exists, so that we can offer abortion care to all the patients of all the doctors in our medical center, as well as patients in our local community.

And so, I have a great deal more experience with this technique now than I did in 1997 when I first testified in Michigan.

[805]

Q. Is the intact D&E technique a routine part of your abortion practice now?

A. Yes, it is a routine part of my personal practice, and the other attending physicians who are part of our group all strongly prefer to use the intact method whenever possible for patients in the second-trimester.

Q. And as a result of the development of your medical practice, has your thinking about D&E's, and, in particular, your thinking about intact D&E's, evolved?

A. Yes, it has.

Q. Can you explain that a little bit?

A. I think that in the late 1990's, I definitely saw potential advantages of intact D&E, but I now feel more certain that those advantages are, in fact, real advantages based on my personal experience using the technique.

* * * * *

[808]

* * * * *

Q. Can you summarize for us what were the results of Dr. Chasen's study regarding the comparative complication rates of intact D&E with D&E that resulted in disarticulation?

A. Yes. Overall for the subjects in the study—and there were about 400 in total in the study—the overall complication rate was about 5 percent. And this was the same for the intact and the disarticulation varieties.

What got my attention in the two groups is that, first of all, the gestational age was greater for the women who underwent intact D&E. And we know in induced abortion that complication rates increase with gestational age.

So for the group with the advanced gestational age to have the same 5 percent complications as the group with the lesser gestational age, is, I think, a result that favors the intact D&E approach.

Q. Let me just interrupt you for one minute. Do you recall what the difference in the median gestational age was in the two groups?

A. Reported here in the article it was 21 weeks for the dismemberment group and 23 weeks for the intact group. So there's a two-week difference.

Q. At that gestational age is that two-week difference a [809] significant difference, in your opinion?

A. I think that is a substantial difference, and it's a clinically important difference.

Q. So would you—if you had two groups of patients, one at a median age of 21 weeks and another at median gestational age of 23 weeks, both having disarticulation-type D&E's, would you expect to see a difference in complication rates?

A. I would expect that if a woman had the same technique used to see more complications in the subgroup with the more advanced gestational age.

Q. So what conclusions, if any, can you draw from the fact that in Dr. Chasen's study the women having the abortions at 23 weeks by intact variant had the same percentage of complications as the women having

disarticulation D&E's at a two-week earlier gestational age?

A. The finding that the complication rate did not increase with advancing gestational age suggests a benefit for the women in the subgroup that had intact D&E.

Q. And how many complications, if you can recall, were recorded in total in Dr. Chasen's study?

I can withdraw. I don't want to waste your time looking for that number.

A. Yes. I think it was 19, but I would have to refer to the article to find the number for sure.

What impressed me about the complications is that [810] there were only a few serious complications, such as perforation, sepsis and amniotic fluid embolus. And all of the serious complications occurred in the disarticulation D&E group. None of the more serious complications occurred in the intact D&E group, which I think, again, implies a potential benefit to being a member of the intact D&E group.

And this distribution of complications is similar to what we have observed in our own practice at our campus of New York Presbyterian.

Q. Dr. Westhoff, if you recall, did Dr. Chasen also study in this—in this publication, did he study the impact on subsequent pregnancies of the two variants of D&E?

A. Yes, he did.

Q. And based on your review of the study, what did they conclude?

A. For all of the patients who went on to have another pregnancy that was cared for at the same medical center they followed up for the outcome of the subsequent pregnancy. And there was not a statistically-significant difference in premature delivery between the two groups.

And, in fact, the women who, in the intact D&E group subsequently had a premature delivery had, in fact, preexisting problems with premature delivery prior to the intact D&E.

So, that is—reduces concern about that issue.

Q. Reduces concern. Can you just explain that a little more?

[811]

A. Reduces concern that intact D&E may lead to more premature deliveries in the future.

Q. And based on your review of the study, do you agree with Dr. Chasen's conclusions?

A. I think that as I interpret the data, I find his conclusions to be very conservative.

And my interpretation of his data is that it tends to favor intact D&E. And his conclusions are only that the two approaches are similar in safety.

Q. As an epidemiologist, in your opinion was the number of the subsequent pregnancies that were followed in the study a sufficient number on which to base a conclusion?

A. The number of pregnancies that were followed would be enough to detect large differences between the two groups. If there are modest differences between the two groups, one would need to observe a

larger number of pregnancies to detect very modest differences.

Q. Dr. Westhoff, I would like you to describe for me briefly how you in your service do D&E abortion beginning at approximately 18 or 19 weeks gestation.

A. We first do an assessment of the patient one and often two days prior to the scheduled surgery. We assess her gestational age and the reasons she is being referred. And, in fact, assess her desires for D&E versus induction.

And as Dr. Creinin testified, not every woman [812] arrives to our service with an adequate amount of information about the alternatives. And if the patient then wants to go forward with a D&E, we at that point will complete the process of informed consent both regarding the use of osmotic dilators, such as laminaria, as well as the surgical procedure itself.

On completion of the assessment in those steps, we will do our first insertion of laminaria using local anesthetic at the time of laminaria insertion.

For patients who are past 20 weeks and for patients who have never given birth before after 18 or 19 weeks, we generally will use two days of laminaria insertion.

For patients who have given birth previously we may only do one day of laminaria insertion.

We make that assessment based on both the gestational age and the condition of the woman's cervix when we examine her for the first time. If she is going to have two days of laminaria, she'll return on the second day for a brief visit during which we remove the

first set of laminaria and, again, using local anesthesia, insert a second set of laminaria.

The patient then returns on the operative day with an empty stomach as assessed by our anesthesia doctors.

And at these gestational ages, our anesthesiologists—and we concur—prefer to use general anesthesia for these cases.

[813]

After induction of general anesthesia, we remove the laminaria, assess the state of the cervix, and then in the safest approach possible, we will remove all of the fetus, the membranes and the placenta.

Q. When you do the D&E, after you've removed the laminaria, do you use any instrument to bring the cervix closer to the vaginal introitus?

A. We use an instrument called a tenaculum which grabs the cervix. And the reason we do this is because the uterus is not attached inside a woman's body by any bones. The uterus is only attached with ligaments.

And, therefore, it is—can possibly flop around a little bit inside the woman's pelvis. In order to stabilize the uterus and hold it steady and straighten the cervical canal, we use a tenaculum to pull down on the uterus so that it remains as stationary as possible during the procedure.

And it is only then that we would begin to—begin the procedure inside the uterus.

Q. And how close does the cervix come to the vaginal opening after you pull it?

A. Okay. Every woman is different. It may be at or slightly above or below the vaginal opening. And this is different for each patient.

Q. Okay.

And how far does the cervix dilate during the D&E?

[814]

A. Our cervical preparation is the same for all of our patients, but each patient individually can respond quite differently to the laminaria. So if some patients will on the operative day have 1 or 2 centimeters dilation. Other patients will have three or four, five centimeters dilation, which, in our experience, is just largely determined by how the woman's body responds to the laminaria.

Q. And is getting too much dilation a concern?

A. I have never been in a situation where I felt the woman had too much dilation.

Q. Talking now about the evacuation part of the procedure, approximately how many instrumental passes does it typically take to evacuate the uterus completely?

A. There is a wide range. I can, of course, in some cases either with my fingers or with an instrument bring down the fetus on my first attempt. And as I continue the extraction, I may need to do no additional insertions of fingers or instruments inside the uterus, but am able to complete the entire abortion in a single pass.

In contrast at the other extreme, we can insert grasping forceps into the uterus and have multiple

passes where even on the first few passes we do not grasp any part of the fetus successfully, but need to make multiple passes, 10 or 20 passes in order to complete the delivery of the fetus in parts.

Q. You said that you would use either forceps or your fingers; [815] is that correct?

A. That's right.

Q. How would you decide which approach you are going to use?

A. Well, I first examine the cervical opening that both the length and the dilation of the cervix with my fingers, and it may be that I can immediately palpate fetal parts within reach of my fingers. And in which case I will use my fingers rather than an instrument.

If I cannot reach any fetal parts with my fingers, then I will use an instrument instead.

Q. And once you start the procedure with instruments, do you complete it with instruments? Or might you bring out a presenting part with an instrument, and then switch to your fingers?

A. Yes. Each procedure proceeds very individually, and so each step of the procedure will depend really on just what happened in the one step before it. And for each step of the procedure I want to do what is going to be safest at that moment.

So, yes, in fact, I have had cases where I may bring down and extract a leg with an instrument and disarticulate that leg, but because the position of the fetus comes down in the uterus during that maneuver, I may then be able to bring down the next leg with my fingers. And, in fact, the rest of the fetus will follow.

[816]

So, similarly, I could start with my fingers and then in addition need to use instruments. So the combination of maneuvers I use are determined one at a time on an individual basis to minimize the total number of passes and maximize patient safety at each step of the way.

Q. And why do you want to minimize the number of passes?

A. Each pass of instruments into the uterus, in my opinion, carries with it at least the potential risk of perforating or lacerating the uterus. So the fewer passes, the smaller that risk will be.

Q. And in your practice do you ever remove the fetus intact to the point where the calvarium lodges at the cervical os?

A. Yes, I do.

Q. And do you attempt to do the D&E in such a way that that occurs?

A. Yes, I do.

Q. And at what point in the procedure do you know if you will be successful in doing the D&E in that way?

A. In a sense we don't actually know until it is over, because each case proceeds on an individual basis. So I will only know that I have completed an intact D&E at the very end when I have completed it.

I really do not know each step of the way exactly what the next step is going to be or the results of the next step until it has been accomplished.

[817]

Q. So in that circumstance where the calvarium lodges at the os, how do you complete the procedure in an intact D&E?

A. With continued traction on the cervix that we described earlier, I can with direct visualization incise the base of the skull with scissors.

At that point in some cases the contents of the skull will drain spontaneously. In other cases we will insert a suction tube to drain the skull contents. Because the bones of the skull are very soft at this stage of gestation, as soon as the skull is empty, it will collapse. And when the diameters are therefore reduced, the entire skull will fit through the cervical opening without any further manipulation.

And that will complete the procedure.

Q. And do you also tend to have to reduce the diameters of the calvarium when you are doing a disarticulation-type D&E?

A. Yes. The skull is the largest diameter of the fetus, and therefore it is the least likely part to be able to fit through the cervix.

If we are proceeding in the fashion of a disarticulation D&E, it is quite common in my experience that the skull will be the last portion that we remove. And in order to reduce the diameters, we'll insert grasping forceps into the uterus, often using sonographic guidance to help us as much as possible to locate the skull.

We'll open the instruments wide enough so that they [818] can accommodate the full diameter of the skull, and we will then crush the skull. And after the

contents of the skull have been extruded because of the crushing motion, maintain the skull in the grasp of the instruments and attempt to pull it through the cervix.

Sometimes we can do that in one piece. Sometimes we remove it in several pieces.

Q. The process of incising the base of the skull, is that a blind procedure?

A. No. We do that with direct visualization. The base of the skull is visible at the cervical opening.

Q. And in terms of the dilation process for the D&E's you are doing, at the same gestational age, so, for example, at 20 or 21 weeks, is there any difference in the dilation process that you use between a disarticulation D&E and an intact D&E?

A. We proceed in the same fashion in terms of our approach to laminaria for all of our patients.

While as I said we do prefer intact D&E, we don't know that we are going to do an intact D&E until after it is done. All of our patients get the same approach to dilation using laminaria.

As gestational age advances, the cervix tends to be somewhat softer because of biochemical changes in the cervical collagen and in the fibrous tissue of the cervix.

So as gestation advances, the cervix typically [819] accommodates somewhat more laminaria. And the cervix often has a greater response to the laminaria, and it achieves further dilation.

Q. In your practice or at the practice in the special GYN services where you are supervising the

physicians, how often are you able to achieve an intact delivery in a D&E?

A. I haven't tabulated this, but based on my experience and what my colleagues report after—at or after about 19 weeks gestation, I think we achieve an intact D&E less than half the time. Perhaps it is about one-third of the time.

Q. So would you say it is somewhere between a third and a half?

A. Perhaps. Maybe closer to one-third. In that neighborhood.

Q. And you said that that is beginning at around 19 weeks gestation?

A. Yes.

Q. Does it ever happen that you achieve an intact extraction prior to 19 weeks?

A. Yes, it does.

Q. Dr. Westhoff, do you make it a practice either to effect fetal demise with potassium chloride or KCL or digoxin prior to performing a D&E procedure?

A. It is not my routine practice.

Q. Why is that?

A. That is imposing on the patient an additional procedure [820] which can be difficult to carry out which may, in fact, require me to call in additional colleagues to help with the procedure.

It is not always successful. It carries a small risk of its own complications, and it offers no benefit to my patient.

Q. Can you think of a time in recent memory where you did perform a D&E after fetal demise had been induced with a chemical agent?

A. Yes. The week the PBA ban was signed, and before we knew if we were going to have a TRO, we did arrange to have KCl injection for patients. In particular, a patient I took care of that week had KCl. And in my opinion because of the rapid softening of the fetal tissue it actually made the D&E portion of the procedure more difficult.

And in this particular patient the result was a dismemberment-type of D&E due to the tissue softening. And the patient did, in fact, have some retained tissue, which resulted in infection and required her to have an additional procedure, hospitalization and procedure to empty the uterus after—a couple of weeks after her original D&E. So—

Q. And was the procedure done under ultrasound guidance?

A. Yes, I believe it was, but I don't recall for certain.

Q. And did you do the KCl injection yourself in that case?

A. No, I obtained the KCl injection from—with the assistance of a colleague in maternal fetal medicine in our [821] department.

Q. And why didn't you do the injection yourself?

A. Well, that has not been my practice in the past. I do not at this moment consider myself skilled in doing that. And to maximize the benefit of the patient I wanted to enlist the assistance of someone who is skilled in fetal intracardiac injection.

Q. And in your opinion was the complication of retained tissue correlated with the use of KCl?

MS. CLARK: I will object, lack of foundation. I don't know if there has been established a basis for her to make that correlation judgment.

MS. GARTNER: It was a procedure she did.

THE COURT: This is a procedure she performed; is that correct?

MS. GARTNER: Yes.

THE WITNESS: Yes.

THE COURT: Objection overruled.

THE WITNESS: Well, if I am not—I can't be confident that this would have been an intact D&E without the KCl. But, it could have been. And in my experience, in my opinion the risk of fetal fragments is minimized or perhaps zero when the fetus is intact.

In this particular case, there was definitely fetal softening due to the fetal demise, and so it is clear to me [822] that the fact that this was—did proceed as a disarticulation D&E was because of the extra fetal softening. And that, at least, permitted the occurrence of leaving part of the fetal tissue behind.

But, of course, in the majority of disarticulation cases those complications do not occur.

MS. GARTNER: Your Honor, may I put the chart up?

BY MS. GARTNER:

Q. Dr. Westhoff, I am going to show you a chart which contains the definition of so-called partial-birth abortion as it is stated in the act that is at issue in this

case, and ask you if you want to just refresh your recollection of what it says.

You can just read it to yourself.

Dr. Westhoff, after refreshing your recollection of the definition of the term "partial-birth abortion" in this law, can you tell us whether you fear prosecution under this act for the D&E's that you perform where the fetus is extracted intact?

A. Yes, I do.

Q. Can you explain why that is?

A. In the sort of procedure we were just discussing, I do, in fact, I think, fulfill all the general conditions that are described here, which is that all my actions are deliberate and intentional. The procedure is going forward as a vaginal delivery. The fetus has a heartbeat and is thus living in the [823] case.

And I think skipping for the moment the vertex presentation, in the more common case of breech presentation, much of the fetal trunk, including trunk past the umbilical—the insertion of the umbilical vessels is, in fact, outside the body of the woman.

And at that point I will perform one or more overt acts, such as collapsing the skull and cutting the cord that I know will kill the fetus.

So I think that my carrying out a procedure in this way is a definite violation of the ban, and I would be subject to prosecution.

Q. Dr. Westhoff, do you fear prosecution under this act for the D&E's that you do where the fetus is disarticulated in the course of the evacuation?

A. Yes, I do. The ban itself, the language here does not specify that the fetus must be intact. And there are cases such as we discussed partly a moment ago in which I may first remove a foot or a leg, and then—so I partly dismember the fetus, but then proceed to bring down the breech.

And I believe that would again fulfill the conditions stated in part a of the ban. There are also cases in which perhaps the first part of the fetus I remove might be part of the back or the ribcage, which are, in fact, part of the fetal trunk past the navel.

[824]

And it appears then for me to continue to carry out the D&E would violate the ban as it is stated here.

Q. Thank you, Dr. Westhoff.

Do you ever treat women who present to you in the midst of a spontaneous second-trimester abortion?

A. Yes, I do.

Q. Is that also called a miscarriage spontaneous abortion?

A. Yes, it is.

Q. How do you treat those circumstances?

A. I will proceed to empty the uterus. And a difference from some of the procedures I was describing a few minutes ago is often the woman will need little or no cervical dilation using laminaria.

The cervix may already be soft and may already be dilated, although in some cases the woman will still need laminaria.

The uterus may be infected. The amniotic fluid sac may be ruptured. The fetus may have stopped growing. And other processes are in progress that signal inevitable end of this pregnancy, but it is up to me to actually empty the uterus.

And I would then proceed with emptying the uterus surgically following the same steps that I was describing previously. And, therefore, in those cases, as well, I believe I would be violating the ban as written here.

[825]

MS. GARTNER: Your Honor, I was going to move to one last section. I don't know if you intended to take a break.

THE COURT: Yes. We are going to take a break.

MS. GARTNER: I think I could complete this in 10 minutes.

THE COURT: Why don't we go to 12:00 and start the cross-examination with the defendant after the break?

MS. GARTNER: Okay. Thank you. Your Honor, I would like to approach the witness to give her a copy of the law.

THE COURT: Sure.

MS. GARTNER: This is Exhibit 1. This is a copy of the law that is at issue in the case.

BY MS. GARTNER:

Q. Before we talk about that, Dr. Westhoff, I just wanted to clarify with you: is it your opinion that in doing a disarticulation D&E that it is possible to leave

fetal tissue in the uterus even if the procedure is being performed under ultrasound guidance?

A. Yes, it is.

Q. Okay. Thank you.

Dr. Westhoff, if you could turn to pages S.3-4 of this law. The numbers are on the top of the pages.

A. Got it.

Q. Dr. Westhoff, are you aware of the fact that at the time [826] that Congress passed this law Congress made certain factual findings?

A. Yes, I am aware.

Q. I am going to ask you to look at some of the factual findings that Congress made and tell us whether or not you agree with those particular findings.

If you would look on the page I directed you to, S.3-4, there is a paragraph that starts 14, and then under that there is large A.

A. Yes.

Q. I am going to read that finding to you. It says:

> "Partial-birth abortion poses serious risks to the health of a woman undergoing the procedure. Those risks include, among other things, an increase in a woman's risk of suffering from cervical incompetence, a result of cervical dilation making it impossible"—I am sorry—"making it difficult or impossible for a woman to successfully carry a subsequent pregnancy to term."

I am going to stop there.

If we assume that the procedure that's being referred to here is an intact D&E—let's say assume

that for now—based on your experience do you agree with the statement that intact D&E increases the woman's risk of suffering from cervical incompetence?

[827]

A. I do not agree.

Q. Can you explain briefly why you don't agree with that?

A. And I don't have any personal experience with that complication with relation to my practice, and I am not aware of any literature that has found such an increased risk.

Also, on biological grounds, I think it is implausible. The dilation that we use for D&E is actually less than the dilation that is achieved in an induction abortion, for instance, where the cervix must dilate enough to accommodate the fetal head.

And also, the lesser dilation that we achieve for these procedures is accomplished over a longer period of time than the dilation that occurs during an induction.

So I think compared to the alternatives in the second-trimester, it is implausible that this particular technique would have had greater, if any, damage to the cervix in comparison to the alternatives.

Q. Thank you. Reading on in this paragraph 14a, it states that:

> "Among the risks are an increased risk of uterine rupture, abruption, amniotic fluid embolus, and trauma to the uterus as a result of converting the child to a footling breech position, a procedure which, according to a leading obstetrics textbook,

there are very few, if any, indications for, other [828] than delivery of a second twin."

Do you see that?

A. Yes, I do.

Q. Based on your clinical experience and reading of the medical literature, do you agree that those are risks of intact D&E?

A I do not agree.

Q. Why is that?

A. There are several reasons, including that I have not observed these particular complications in my experience or heard about them.

But, in particular, at nine months the fetus occupies a great deal more space in the uterus, and so the difficulties of doing a version at term alluded to in the obstetrics textbook may not be relevant to what is going on in the midtrimester.

During the midtrimester the fetus is floating more freely in the uterine cavity, and the majority of the time may already be in a breech position or in a transverse position, which is completely different from what occurs at term.

And so therefore it may already be in a breech position, version is not necessary. And if there is a version in the course of the procedure, it is done with a small fetus in a more freely floating environment.

So I think the risks that have been described at [829] term do not apply in this setting.

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[830]

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What I would like to ask you, Dr. Westhoff, is whether you agree—assuming that this is a reference to intact D&E's—whether you agree that intact D&E lies outside the standard of medical care?

A. No. It lies within the standard of medical care.

Q. Can you explain that?

[831]

A. This is a procedure we carry out, we offer to our patients, carry out and teach safely at Columbia University, as well as a number of other university-based abortion services where it is used and taught, and I think discussed by colleagues and widely accepted among academically-based abortion providers. And, thus, I think it is within the standard of care.

Q. Thank you.

Can you tell us what other academic institutions that you are aware of where intact D&E procedures are being taught and performed?

A. The procedures are being performed—

MS. CLARK: I am just going to object on lack of foundation. I don't know how she knows that these other institutions are or not performing and—

THE COURT: Well, we will limit it to obviously her own personal knowledge.

BY MS. GARTNER:

Q. And, Dr. Westhoff, please, if can you tell me, do you speak with colleagues, fellow OB/GYN's at other institutions around the country?

A. Yes, I do.

Q. Do you speak with them about their abortion practice?

A. Yes, I do.

Q. And based on those conversations and your personal knowledge, can you tell us what other academic institutions are [832] currently teaching intact D&E techniques?

A. Based on specific conversations with colleagues I know the technique is being used and taught at New York University, at Cornell, at Albert Einstein College of Medicine, at Northwestern University, and that it is certainly being taught about in additional medical centers around the country.

Q. Thank you, Dr. Westhoff.

And one final question: if this law were to be enforced, what impact would it have on your practice and on your patients?

A. Well, I would certainly fear prosecution if I were to continue my current practice. And I think it would require conversations between me and our hospital about what the scope—our scope of practice could be in the future.

And there would have to be discussions about discontinuing offering D&E's altogether.

One of my colleagues in another institution right now, since the passage of the law, her hospital has forbidden her from doing any D&E's in that institution.

I would fear that we might be subject to the same change in practice.

* * * * *

[837]

A. Right. Prior to 19 or 20 weeks, because the fetus is much smaller, one day of dilation gives us ample dilation for the completion of the abortion procedure. And because of the larger size of the fetus it requires more dilation at the more advanced gestational age.

Q. So at 19 or 20 weeks you have got two days of dilation, and before that you have one day of dilation?

A. In general. But every case—we do this on an individual basis, based on the patient's anatomy and condition of her cervix, what is most appropriate for that individual.

Q. And you are aware that some physicians prepare the cervix over a three-day period; is that correct?

A. I have heard so, yes.

Q. Now, when you are performing a disarticulation D&E, after you grab the fetal part to be disarticulated, you disarticulate that fetal part by a twisting motion; isn't that right?

A. We use a combination of twisting and traction and—to accomplish the maneuver.

Q. And when you perform an intact D&E procedure, after you grab the fetal part you don't use the twisting motion but instead with a gentle traction you pull the part or parts, and the fetus will emerge through the cervical canal; is that right?

A. Yes, that is reasonable.

Q. When you perform the intact procedure, you perform a * * *.

* * * * *

[838]

* * * * *

Q. And this is not something that is done in a dismemberment procedure, is it?

A. There is a real range in how these procedures occur. And some procedures are completely dismemberment and some procedures are more completely intact. But for many cases [839] there is a range in-between where the fetus is, you could say, partially intact. So there can be some parts, portions of the procedure that occur with dismemberment, and other portions of the procedure that occur intact.

So some of the maneuvers that you are describing right now may still be utilized, in part, during a procedure that is also characterized by dismemberment.

Q. When you do the arm sweeping maneuver, would it be fair to say that when you do this procedure that the fetus would be mostly intact? Would that be the—would that be the situation in which you would do the arm sweeping maneuver?

A. Not necessarily.

Every case really proceeds individually. And to use that maneuver just depends on the relative position of the trunk. And one arm and shoulder at a moment does not depend on whether any of the other parts of the fetus are intact.

Q. Doctor, if you had dismembered the arms, you wouldn't do the sweeping maneuver, would you?

A. If both arms were already dismembered, I would not do the sweeeping, no.

Q. Now, when performing the intact procedure the thorax of the fetus usually will not pass through the cervix without forming this digital arm sweeping maneuver; isn't that correct?

A. I think that is usually correct.

[840]

Q. After you sweep the arms, then the neck of the fetus will be in the cervix, but the head of the fetus will be in the uterus; is that correct?

A. Yes.

Q. And in performing the intact D&E procedure, when the head is still in the uterus, you do not enter the uterus with forceps, but you make an incision with scissors at the base of the skull?

A. My general preference would at that point be to make an incision at the base of the skull, that's right.

Q. And when you are doing the D&E dismemberment procedure you don't make that same incision at the base of the fetus' head. Instead you would decompress the skull by crushing it, correct?

A. That is generally correct, yes.

Q. Is it correct that at the Allen Pavilion, that—is it correct that at the Allen Pavilion you have been performing abortions there for the last three years?

A. Yes, we perform some abortions there. In years from the mid-90's forward. But the service as I described it has existed at the Allen Pavilion since 2001. But there were abortions performed there, you know, in lesser numbers in years preceding 2000.

From about 1995 forward there were certainly some abortions performed at the Allen Pavilion. Maybe one half day a week or one day a week in the preceding years.

* * * * *

[843]

Q. But you would agree, wouldn't you, that if you wanted to you could dilate the cervix so much that you didn't have to crush the head?

A. Well, for instance, with an induction, the cervix will dilate more, and the head will be delivered without reducing its diameters.

I have never done this, but I imagine it would be possible to continue using laminaria for additional serial treatments over time and achieve greater dilation to the point where the cervix is as far dilated as the diameter of the fetal head.

So I have never done that, so I can't say for sure.

Q. Doctor, if you wanted to determine the safety of intact D&E versus a dismemberment D&E in terms of cervical incompetence, at a minimum you would need to follow the women through their next pregnancy; isn't that right?

A. Since cervical incompetence is, in fact, determined by outcome of the future pregnancy, you don't have outcomes until the women have another pregnancy.

Q. So you would have to follow women into their next pregnancy—

A. Right.

Q. —in order to make a determination?

A. Yes, given that not all women are going to be having a future pregnancy, you can only follow the subset that does have [844] a future pregnancy.

Q. And at this time, you do not know what the results of a study comparing the long-term complication of cervical incompetence would be if you compared dismemberment D&E to intact D&E; isn't that right?

A. I am sorry. Can I hear that one more time?

Q. At this time you don't know what the results of a study would be of comparing dismemberment D&E and intact D&E with respect to cervical incompetence; isn't that right?

A. I do not know the results of a study that has not yet been done, that's correct.

Q. And, Doctor, in performing a reliable study you would want to follow all the patients through the next pregnancy, not some of them; isn't that correct?

A. I am just pondering if I can find a different word than "reliable," because "reliable" means in really epidemiological terms is if you do a study once, for instance, and you do a study a second time and you get the same results the second time, then you have done a reliable study. And I don't think that is what you are actually asking me.

Q. If you do one study.

A. One and only one study.

I would like to get the most information from a study, if you have outcome information on the largest proportion of subjects. And so I would—in doing any study, [845] I would like to have as much outcome

information as possible in order to learn something from the results.

Q. So you would prefer to evaluate all of the women who had a subsequent pregnancy, who had subsequent pregnancies, rather than only some of them when evaluating cervical incompetence?

A. If it is possible to get that information that would be valuable information to have.

Q. Now, you stated in your November 4th, 2003 declaration submitted in connection with the New York case that you do not believe intact D&E would cause cervical incompetence; is that right?

A. That's right.

Q. And your belief that D&X or intact D&E would not lead to cervical incompetence is simply a belief, right?

A. There are not at this point very much data, so I am basing that more on my kind of interpretation of the biology of what happens more than on the results of studies, which, as you know, have not yet been done to any large degree.

Q. And as an epidemiologist, you don't give much weight to someone's belief in the total absence of studies, do you?

A. Well, in fact, in epidemiology there is certainly a hierarchy. And clinical experience and biological plausibility certainly do inform practice in my understanding of the world.

If I have studies, I would be more inclined to rely on results of the study than to rely on belief that exists just [846] in my own head, certainly.

Q. And in the field of epidemiology, intuition is not accepted as a valid method of proof or analysis, is it?

A. If one is looking at a study, you use statistical methods to analyze the study. You don't use intuition to analyze the study.

But if there is no study at all, one must rely on biological principles and clinical experience in order to formalize a basis for practice.

Q. But in the field of epidemiology, intuition is not accepted as a valid method for proof and analysis, is it?

A. If one is analyzing a study, one needs a statistical, analytical method. One doesn't use intuition to analyze the results of a study.

Q. It is correct that you performed D&E's by disarticulation at 23 weeks; isn't that right?

A. I have done so, yes.

Q. And in your opinion, a disarticulation procedure at 23 weeks is safe?

A. It is safe.

Q. And it is safe at 21 weeks?

A. Yes. Safety is always relative to what the alternatives are. And safe in the sense that the overall complication rates are low, but one must also think what the alternatives are.

Q. Doctor, you do not take steps to ensure that the fetus is * * *.

[847]

* * * * *

Q. Doctor, you do not set out to take steps to ensure that a fetus is removed intact because of maternal complications, right?

A. In general with D&E's I do prefer to remove the fetus intact if I can safely complete the procedure that way. And as I stated earlier, we don't do intact procedure for more than half of our patients, so that is not always possible.

I do think my patients with medical problems have more to benefit from an intact approach, but it doesn't—the fact that they have the potential to benefit the most from an intact approach doesn't necessarily mean that I am more capable of achieving an intact approach in those patients.

I may still do a dismemberment approach because at the time of the procedure that's the safest thing I am able to accomplish.

* * * * *

[861]

* * * * *

Q. And the Chasen study found no difference between the time of the procedure for the women in the intact group and the women in the dismemberment group; isn't that right?

A. Well, I disagree slightly with that characterization of the results in table III at median procedure time. So what they find is that the 50th percentile is 22 minutes in each group. But you will see that they also give the range. And in the intact group, the longest procedure was 45 minutes. But in the disarticulation D&E group, the longest procedure was 60 minutes.

It is the longest procedure which is really an indicator of what is happening and also difficult procedure. You can see for both types the shortest procedures were six minutes. The median procedure was 22 minutes. But there was a difference in the longer procedure. And they chose to present their results as a comparison of medians, which is fair and reasonable thing to do.

But what concerns me with taking care of patients is how long does the hardest procedure take? And that was longer in disarticulation group.

Q. And, Doctor, for what may be the one procedure that took the 45—that took the 60 minutes, you have no idea what the circumstances were surrounding that patient, do you?

A. You're right. They did not present the data surrounding [862] that.

Q. And so it is important—what is important to report is the median—is the median length of time to perform the procedure; isn't that correct?

A. I think there is really a legitimate variety of ways to report outcomes, and averages are one of them. I think averages can be reported as means or medians, for instance.

I think it's legitimate to know how long are the longest, most difficult procedures. There are a variety of things. They chose to present one. And the one they chose to present is perfectly legitimate. But I was interested in reading this at looking at how long the longest procedures took.

Q. And you also testified that there are advantages of the intact D&E procedure, and that it helps minimize blood loss, correct?

A. Yes, I did.

Q. And you testified earlier, the Chasen study found no difference in the blood loss between the woman in the intact group and the woman in the dismemberment group, right?

A. Yes. Similarity, again, in table III, they reported the medians. And the medians are exactly the same. And for both cases the ranges are a little different with the intact group having a range from 20 to 1200 CC's of blood, and the disarticulation group having a range from 40 to [863] 1500 milliliters of blood.

So the disarticulation group, also, the worst patient had 300 ML's more of blood loss or one unit additional blood loss compared to the intact group.

* * * * *

[865]

Q. And I think you testified in answer to one of Ms. Clark's questions that in your opinion intact D&E would be especially beneficial for women with maternal health conditions; is that correct?

A. Yes, I think so.

Q. Can you explain why that is?

A. Well, if a woman has a serious medical problem at the time she begins her care, she is—will be vulnerable. And if that woman experiences a complication, that complication in her case may be catastrophic compared to a woman who goes to have a D&E without preexisting medical problems.

And it is simply that, for instance, a perforation or laceration or heavy bleeding will require additional interventions. And the woman who starts the case with medical problems simply doesn't have the stable condition and physiologic reserve to cope with the complication. So avoiding major complications is particularly important for that woman's health.

* * * * *

Supreme Court, U.S.
FILED
AUG 3 2006
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No. 05-1382

In the Supreme Court of the United States

ALBERTO R. GONZALES, ATTORNEY GENERAL,
PETITIONER

v.

PLANNED PARENTHOOD FEDERATION OF AMERICA,
INC., ET AL.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

JOINT APPENDIX
(VOLUME 3)

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PETITION FOR A WRIT OF CERTIORARI FILED: MAY 1, 2006
CERTIORARI GRANTED: JUNE 19, 2006

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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

No. C 03-4872 PJH

PLANNED PARENTHOOD FEDERATION OF AMERICA, INC. AND PLANNED PARENTHOOD GOLDEN GATE, PLAINTIFFS

v.

JOHN ASHCROFT, ATTORNEY GENERAL OF THE UNITED STATES, IN HIS OFFICIAL CAPACITY, DEFENDANT

TRANSCRIPT OF PROCEEDINGS
Friday, Apr. 16, 2004
Volume 11

BEFORE THE HONORABLE
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* * * * *

[STEPHEN T. CHASEN, M.D.—DIRECT EXAMINATION]

[1705]

* * * * *

Q. Good morning, Dr. Chasen.

A. Good morning.

Q. Are you a physician?

A. Yes, I am.

Q. And what are your specialties?

A. I'm an Obstetrician and Gynecologist, and my subspecialty is maternal fetal medicine.

Q. Are you board certified in those areas?

A. I am board certified in both areas, yes.

Q. Where are you currently employed?

A. I am a member of the full-time faculty of the Weill Medical College of Cornell University.

Q. And where is the Weill Medical College, Cornell, located?

A. In New York City, Manhattan.

[1706]

Q. What position do you hold there?

A. I am an associate Professor of Obstetrics and Gynecology.

Q. Do you have any other medical appointments?

A. I have privileges at hospitals. That's my academic appointment is at the medical college. I am an attending physician at the New York Weill Cornell medical center, which is the teaching hospital of the Weill Medical College of Cornell University.

And I am also—I also have privileges at Flushing Hospital and Medical Center in Queens in New York City.

Q. What position do you hold at New York Weill Cornell Medical Center?

A. I am Director of High Risk Obstetrics. I am the co-director of the Obstetrics and Gynecology residency program, and I am the director of the maternal fetal medicine fellowship program.

Q. Are you in the same department as Dr. Carolyn Westhoff?

A. No, I am not.

Q. What are your responsibilities in your positions at the New York Weill Cornell Medical Center?

A. My clinical responsibilities include being the attending and responsible physician for the high risk obstetrics clinic where women who have—they may have medical problems that precede pregnancy or medical patients who receive prenatal care at the high risk obstetrics clinic. Some of these patients [1707] have medical problems that precede pregnancy. Some have complications that arrive during pregnancy. Some of these patients are found to be carrying fetuses that are abnormal.

And these—all of these women receive prenatal care under my direct supervision at our high risk obstetrics clinic.

My clinical responsibilities also include supervising the care of women who are pregnant and are hospitalized for reasons not having to do with delivering a baby.

Again, various complications may include preterm labor or other medical problems. My clinical responsibilities include supervising the prenatal diagnosis unit where women may come to have ultrasound while they are pregnant or to have procedures such as amniocentesis or other types of prenatal diagnostic procedures or assessments of fetal health.

I also see women as outpatients for whom I am not providing prenatal care, but as a consultant, women who may be planning to get pregnant, who may have a

complicated reproductive history or may have medical problems that could complicate pregnancy or who are found to have—to be carrying a fetus that is abnormal in some way.

Those are my main clinical responsibilities.

Q. In what settings do you currently treat patients?

A. I treat inpatients in the hospital. I treat outpatients in [1708] the high risk obstetrics clinic, patients who are receiving prenatal care.

And I see outpatients in the prenatal diagnosis unit for women, again, who are coming for prenatal diagnosis or women who are coming to see me as a consultant.

Q. And approximately how many patients are currently under your care?

A. The patients under my direct prenatal care are those patients in the high risk obstetric clinic. And at any given time I believe we are following approximately 50 patients.

At any given time I am probably supervising the care for anywhere from one to five inpatients, pregnant women with complications requiring prenatal admission to the hospital. And our prenatal diagnosis unit has an extraordinary high volume. Every day, probably, between 50 and 80 women come for a procedure, whether it's ultrasound or invasive procedure. So I don't see all of those women personally, but I supervise and I oversee their care.

And in any given week I probably see between five and ten women who come to see me in consultation.

Q. What is the range of gynecological and obstetric care and counseling that you provide?

A. All matters of obstetric procedures, including prenatal care, including prenatal care in both inpatient and outpatient setting, prenatal diagnosis. I do have some labor and delivery [1709] coverage responsibilities where I have the opportunity to deliver babies by vaginal delivery or by c-section. Surgical procedures that I do that aren't c-section. Most women these days require vaginal deliveries that have a surgical procedure could include a procedure called "cervical cerclage," whereby a stitch is placed around the cervix with the intent of preventing a pre-term birth.

And another procedure I do is abortion, almost all of which are in the second-trimester.

Q. And why are most of the abortions you perform in the second-trimester?

A. Almost all cases of abortion I perform follow the prenatal diagnosis of a certain abnormality. Unfortunately, such prenatal diagnosis don't occur in the first-trimester. They occur in the second-trimester.

I do some cases for women who have medical complications in pregnancy. And the physiology in pregnancy is such that most of these conditions will become manifest or deteriorate after the first-trimester.

And the final reason is that in my hospital, in my department, there are only a few of us that have the expertise to perform second-trimester surgical abortion. Most obstetricians in my department are comfortable doing first-trimester abortion. So those patients are not referred to me.

[1710]

Q. Approximately how many abortions do you perform a month?

A. Usually between three and five.

Q. And up to what gestational age do you perform abortions?

A. In a living fetus—again, I do some abortions following spontaneous fetal death. In a living fetus up to 23 and six-seventh weeks.

Q. Is that 23 and six-sevenths weeks LMP?

A. It's 23 and six-sevenths weeks LMP to correspond to, I guess, 21 and six-sevenths weeks postconception.

Q. And what type of second-trimester abortions do you perform?

A. I perform dilation and evacuation.

Q. And is dilation and evacuation procedures been a significant part of your abortion practice?

A. Given that essentially all of the abortions I perform are in the second-trimester and almost all of them are surgical abortion, dilation and evacuation is the procedure I perform in almost all cases.

Q. Have you also performed induction abortions in the second-trimester?

A. I have.

Q. Have you ever performed what has been called an intact D&E?

A. I perform D&E, and one of the variations that I use includes what is required as an intact D&E.

Q. Is the intact D&E variation a significant or a part of your regular practice?

[1711]

A. Yes, it is.

Q. Is it a significant part?

A. Yes, it is.

Q. You also indicated that you teach at Weill Medical College at Cornell; is that right?

A. That is correct.

Q. What subjects do you teach?

A. I teach obstetrics, both low risk and high risk. And I teach that to medical students, as well as residents in obstetrics and gynecology. I teach high risk obstetrics to residents and obstetrics and gynecology and to physicians who have completed a residency in OB/GYN and are doing a fellowship in maternal fetal medicine.

I teach prenatal diagnosis to residents and to maternal fetal medicine fellows. I teach hands-on procedures like deliveries or cerclages or abortions to medical students, residents and fellows at the medical college.

Q. And does your institution offer any training in abortion procedures?

A. Yes, it does.

Q. What types?

A. Medical abortion in the first and second-trimester, and surgical abortion in first and second-trimester.

Q. Does your institutional also teach induction abortions?

A. Yes, it does.

[1712]

Q. And is D&E procedure taught?

A. Yes, it is.

Q. Is the intact variation of D&E taught at your institution?

A. Yes, it is.

Q. And to how many medical students or residents are abortion procedures taught?

A. The medical students rotate through an Ob/Gyn department in the third year of medical school. There are approximately 100 students a year, all of whom will rotate through our department and all of whom will have the opportunity to observe and participate in procedures, including surgical abortion.

There are 25 residents in our residency program, and they all rotate periodically through the gynecology service, including procedures in the operating room. And the vast majority of these residents participate in abortion procedures.

Q. Do you have any responsibilities for training these residents?

A. Yes, I do. I have a large responsibility in training these residents.

Q. What is that, roughly?

A. I am the co-director of the residency program, so I am one of the responsible physicians for their education, both in the clinical setting, as well as in the